User Guide

EasyProf: 3.0

ITACA
Interactive Training Advanced Computer Applications, SL.

© 2011, Interactive Training Advanced Computer Applications S.L. All rights reserved. EasyProf® v. 3.9 User manual
Barcelona, SPAIN

No part of this document may be reproduced or converted into any other electronic format without prior, written permission from Interactive Training Advanced Computer Applications, S.L.

This manual, as well as the software it describes, is supplied under license and may only be used in accordance with the conditions set forth in such license. The information in this guide is provided for informative purposes and is subject to change without prior notice. Interactive Training Advanced Computer Applications, S.L. accepts no responsibility for any errors or inaccuracies that may be in this user guide.

Trademarks

EasyProf® is a registered trademark of Interactive Training Advanced Computer Applications, SL.

Java and the Java logo are registered trademarks of Sun Microsystems, Inc.

Microsoft and the Windows logo are registered trademarks of Microsoft Corp.

First edition: April 2008 – Last actualization: October 2011

Interactive Training Advanced Computer Applications, S.L.

C/. Rosselló, 253 5º 1ª E – 08008 Barcelona (España)

TABLE OF CONTENTS

HOW TO USE THIS MANUAL 9

CHAPTER 1 BASIC CONCEPTS OF EASYPROF® 10

1.1 General Overview of EasyProf® 10

1.2 The application structure 10

1.3 Working area 11

- The Title
- The Table of Contents
- The Master pages
- The Headings
- The Pages

1.4 The content structure 13

1.5 Edition environment 13

1.6 User and Final user 17

CHAPTER 2 CREATING A NEW TITLE 17

2.1 The Stages 17

- Opening a New Title
- Defining title parametes
- Working materials preparation
- Creating the table of contents
- Defining the Master Pages
- Creating content
- Including interactivity
- Previews CD-ROM and HTML
- Title publication

2.2 File structure in EasyProf® 20

2.3 Workspace concept 20

2.4 Project management with EasyProf® Workspace 20

2.5 Working with Workspace 22

2.6 Resource manager 22

CHAPTER 3 EDITING TITLES 25

3.1 Working with Files 25

- New Project
- Opening a Title
- Save
- Save as
- Exit

3.2 Exporting, Importing and Merging projects 28
3.2.1 Exporting a project
3.2.2 Importing titles
3.3 Exporting and Importing from the Workspace 30
3.4 How to set title settings 32

3.5 Previous versions file importation 32
3.6 Importing Power Point files 32

CHAPTER 4 WORKING WITH THE TOC AND MASTER PAGES 38
4.1 How to work with Table of Contents 38
- Headings
- Pages
- The Table of Contents bar
- How to create a Heading and a Subheading
- How to change the name of a heaing
- How to move a heading
- How to delete a heading
- How to block a heading
- The headings propieties window
4.2 How to work with pages 47
- How to add a page
- How to move a page
- The page Properties Window
4.3 How to work with Master Pages 48
- The Master Pages heading
- Master Pages
- Relationships between a page and a Master page
- How to delete a Master page

CHAPTER 5 CREATING CONTENT 51
5.1 Content 51
5.2 Content elements 51
- Pages and Master Pages as content elements
5.3 Procedure for creating a Content Element 51
5.4 Basic functions for page edition 52
- Undo
- Redo
- Cut and Paste
- Copy and Paste
- Special Paste
- Sorting of content items:

- Send to back
- Bring to front
- Send backward
- Delete
- Blocking
- Align content elements

5.5 Help with identifying the Pages Desktop Area 60

5.6 The Attribute Editors 60

- Border editor
- Color editor
- Cursor editor
- Background editor
- Image position
- Text editor
- Link editor
- Style editor

CHAPTER 6 BEANS AND CONTENT ELEMENT ATTRIBUTES 74

6.1 Content elements in EasyProf® 74

6.2 Content element attributes 75

6.3 General attributes of the content elements 77

6.4 Description of content elements 77

- Page
- Master Page
- Line
- Polygon
- Curve
- Shapes
- Image
- Carousel
- Media
- Active label
- Art label
- Rich text
- Table
- Timer
- Button
- Hot spot
- Pop-up
- Progress bar
- Text field
- Dynamic content element (Html)

- Table of contents
- Path
- Text Container
- Text feedback

6.5 Tests 114

- Test manager
- Question's edition
- Question properties
- Answer edition in choice questions
- Fill in the blank
- Drag & Drop
- Assigning questions to a test
- The QTI specification

6.6 Test scores 129

6.6.1 Test container and test editor

6.6.2 Score

- Test score
- Question score
- Choice questions score
- Special cases

CHAPTER 7 INCLUDING INTERACTIVITY 138

7.1 The Action Window 138

- Action Window elements

7.2 How to create an action 143

7.3 Actions scope and grouping 143

- Actions scope
- Actions with a common source and event

7.4 Action types 144

- Common Actions
- Animations and effects
- Non-common content element actions
- Page browser actions
- Title Manager actions
- Keyboard events in actions

7.5 The action list 163

7.6 Use of variables in EasyProf® 164

CHAPTER 8 THE TITLE MANAGER UTILITIES 175

8.1 Including utilities in a Title 175

8.2 Annotations 176

- Annotations page
- Annotations Manager

8.3 Search 177
- Search
- Results

8.4 Glossary 178
- The glossary Editor
- New caption introduction
- Caption edition
- Groups
- Use of the glossary by the end user

8.5 History 180

8.6 Print 180

CHAPTER 9 EASYPROF® AND SCORM 181

9.1 SCORM 181
- ADL and SCORM
- SCORM State
- The SCO

9.2 SCORM Implementation in EasyProf® 181
- Metadata edition
- Publication

9.3 The SCO Manager 182
- General
- SCORM
- Objectives
- General
- Key Words
- Catalogue Entries
- Classification entries
- Life cycle
- Rights
- Evaluation
- Prerequisites
- SCORM Objectives

9.4 States of an SCO in a LMS 196

9.5 Links and documentation 199

CHAPTER 10 PUBLISHING THE TITLE 199

10.1 How to publish a Title for CD-Rom 200
- Output player configuration
- Distributing CDs in Windows

- Realisation of auto-run CDs (Windows)

10.2 How to publish a Title for the Web (Html) 201

- Generated files
- HTML publication options

10.3 How to publish a Title for the Web (SCORM-Html) 203

CHAPTER 11 MONITORING 204

11.1 The idea of monitoring 204

11.2 The Follow-up action 204

11.3 Sending the Tracking file 205

- FTP uploading
- Sending e-mail or by Applet FTP

11.4 Show tracking file in HTML 210

- Follow-up
- Pages
- Tests

CHAPTER 12 EASYPROF® TRANSLATOR TOOL 211

- How to use EasyProf® translator tool?

CHAPTER 13 GLOSSARY 217

HOW TO USE THIS MANUAL

The structure of this Manual follows a logical progression from general information to particular features. Thus, first two chapters present an overview about EasyProf®, from the paradigma concept in which it is based to the main elements and tips for the best use of the system. We recommend reading this manual in order to obtain a better and more comprehensive understanding of the application.

The remaining chapters decribe in detail how to generate content: Title management, Table of contents creation and edition, addition of content to pages, use of components and lastly how creativity can be incorporated.

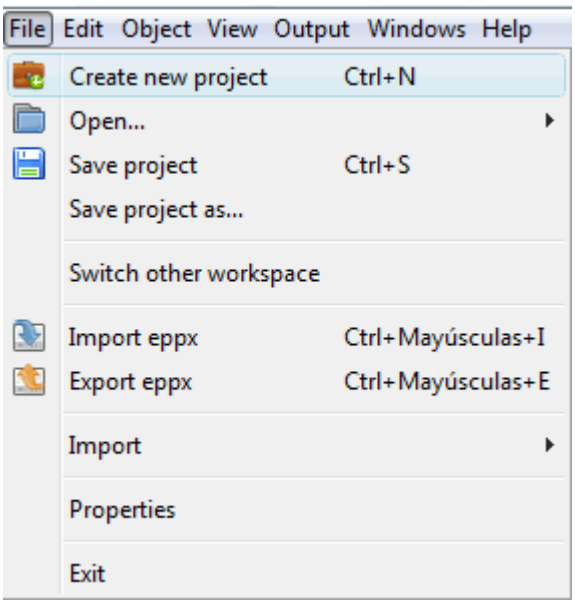
Two last chapters describe Title publishing processes, that is, the steps required to publish, in the right format, product thought for the final user.

Chapter order may be strictly followed in the prestablished way, though not exclusively. A user with some knowledge of EasyProf® can make up their own order to suit their needs. The Index provides quick access to any content, so that any punctual query can be answered easily and timely. A glossary is also encluded with definitions of all the key terms used in this text.

Special syntax

Menu options

File > Create new file



Field name

<Field name>

Field insert

Field insert

Master page	Inherited : Pop up	
Inheritance	Edit the inheritance	

Keyboard and button shortcuts

(Ctrl + A) Control key and A are simultaneously pressed.

(F2) Function key F2

(Accept) Accept button

Reference

(See chapter 3.1)

1. BASIC CONCEPTS OF EASYPROF®

1.1 General Overview of EasyProf®

EasyProf® is an authoring tool for producing:

- Multimedia training Titles.
- Multimedia content.
- Multimedia presentations with hyperlinks and complex browsing.

EasyProf® is mainly used for creating multimedia training Titles, but it is also suitable for all kinds of tasks in which it is necessary to organize large amounts of information, create hypertext links and present any other kind of multimedia information, as well as for structuring and general management of content for any use that needs to be widely distributed on the internet or CD-ROM.

EasyProf® provides an authoring environment with tools highly suited to the task, making it possible to organize and create content, including the functions specific to any course, etc. We have sought to make the application suitable for a particular kind of user: people who provide training or give presentations and have no experience of multimedia or programming, who need to create any kind of Title from an interactive course to a standard presentation.

EasyProf® is also intended for producing any content based on a table of contents, whether very simple or highly sophisticated. For this reason, the generic name given to the content is Title.

In more technical terms, EasyProf® is an authoring tool developed in an object-oriented programming language called Java, which by definition is especially suitable for distribution on various platforms and over the internet.

EasyProf ® 3 version is available for Windows 9x, NT, 2000, 2003, XP and Vista. For other platforms compliance (Mac OS or Linux) please contact ITACA.

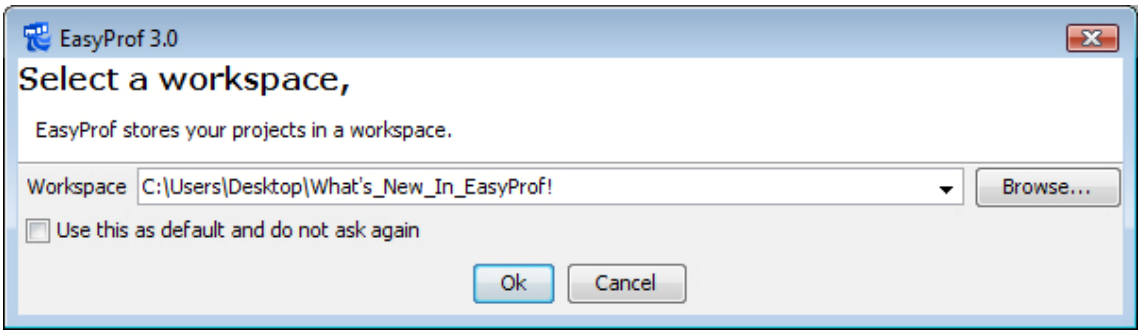
1.2. The application structure:

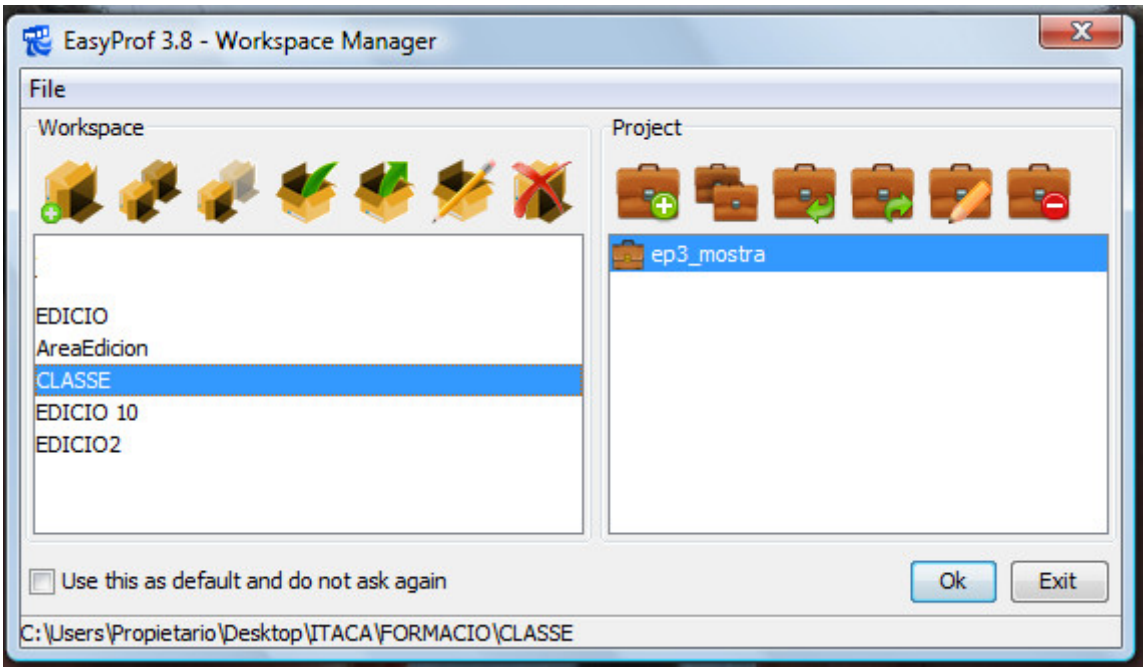
EasyProf® 3 has been conceived in order to facilitate the contents production, no matter how big is the Project. For this reason it has been designed with a scalable technologic architecture that allows the user incorporate new functionalities when necessary. Those new functionalities can be incorporated through Plug-ins, or application extensions. Those extensions can be used for incorporating new content elements, generating contents for new platforms and features or adding tools for the editor.

EasyProf® has been internally structured in order to optimize productivity and allow this scalability. For this purpose it uses some concepts with which the editor must become familiar:

Working Area (Workspace)

The first thing we will do when opening the application is defining a Working Area in the location we choose in our PC. EasyProf® will automatically create the folders and files structure so that all the working material is located at the right place.





Projects

In the working Area we can include as many Projects as we want. Each Project will count on its own associated resources. In general terms we can say that a Project conceptually is equivalent to a Title.

Managers

EasyProf® incorporates several tools called “Managers” whose aim is to optimize the administration of different elements that are part of the Project. Thus, we have a Resource Manager for the graphic material or a Test Manager for the quick creation of assessment material. The Managers are especially useful when we have all the material before starting with the edition

1.3 The Workspace. Content structure:

In order to help users understand the concepts and the way in which many software applications work, as well as to make them easier to use, the design and basic way of using lots of applications is based on a conceptual example or paradigm that users are generally very familiar with: the book.

The book, which has also been chosen as the inspiration for EasyProf®, has its content organized by pages. In the same way, EasyProf® uses screens that are structured using a hierarchical classification of headings, called the Table of Contents of the book. The basic elements you will deal with when using EasyProf® are:

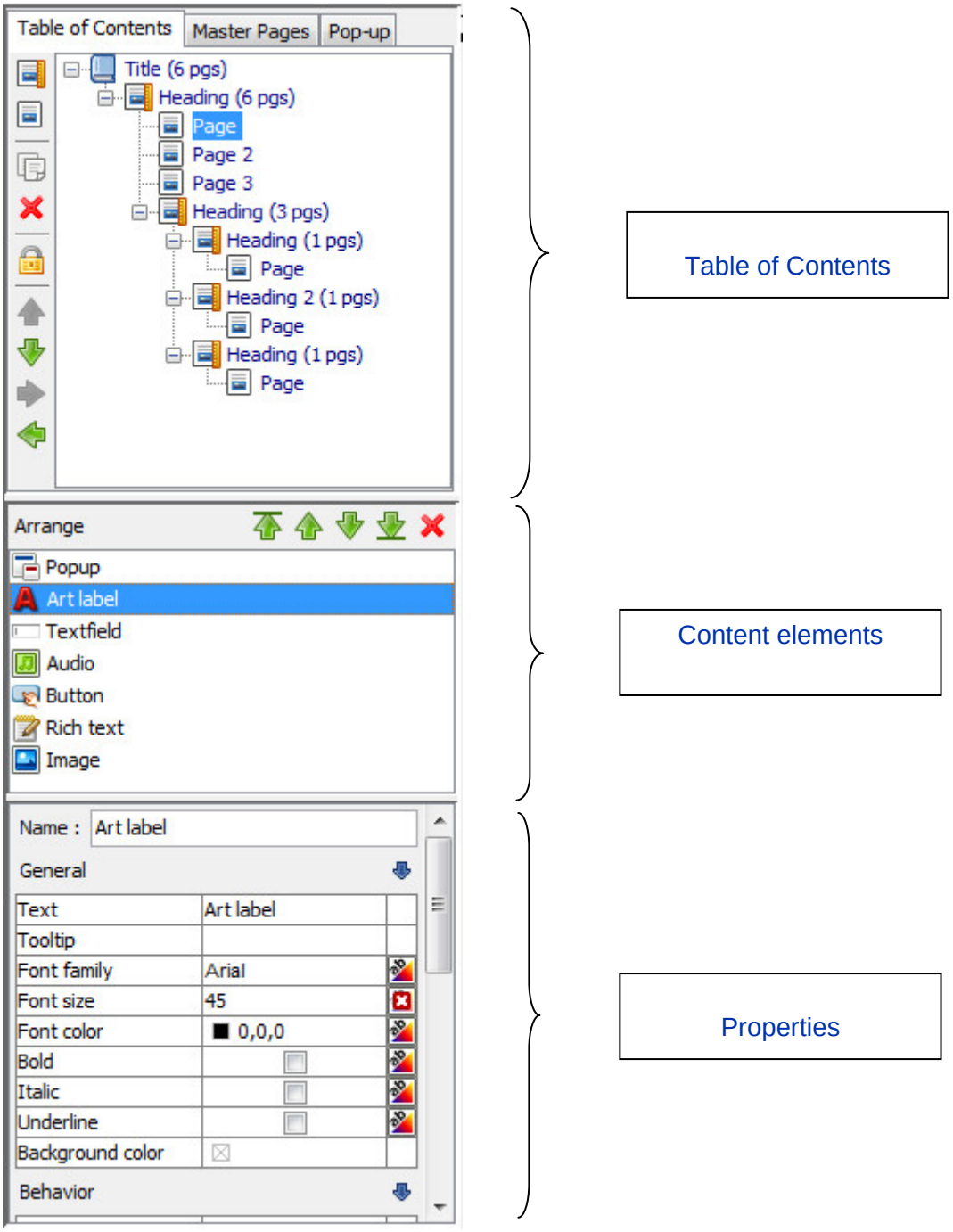
The Title

This is the generic name for multimedia material or content made with EasyProf®. EasyProf® handles one Title at a time, but it is possible to merge two Titles or transfer content from one Title to another by using the import and export options, as well as copying and pasting them and from another Title

(see Exporting Titles, Importing Titles and Merging Titles sections in Chapter 3: Editing Titles).

The Table of Contents

The Table of Contents area is where we specify the organizational structure of the Title material. This includes both Pages and Titles.



The Master Pages

Master Pages are dynamic templates. Their main function is to provide a very useful interactive background to all pages where all graphic aspects and navigation are based. Every page inherits a Master Page with all its elements and interactive behaviours. Any change made to a Master Page will inmediately be reflected on all associated pages. This simplifies enormously the incorporation of all those elements that are common to many pages.

The Headings

In the Table of Contents we can find several Headings and Subheadings that help us to thematically group content pages.

The Pages

It should be emphasized that only pages may include content. By default, pages are organised sequentially, as they would in a book. However, this doesn't mean that navigation has to be linear. There are means of interaction such as buttons, hyperlinks, Hot spots, etc... available to the author to allow the final user to decide how to navigate and direct his own navigation. These features give an enormous flexibility and many possibilities to the Title.

1.4 The content structure:

All the visible content in a Title is always found within the pages (including Master Pages). Final user can interact with all content elements by predefining the user actions. Thus in one page we can find:

Content elements

Content of any type, is incorporated in pages using so called Components, always selecting the most suitable according to its associated information: images, texts, buttons, etc. The component palette is located on the right hand side of the Page area, and we find there all available components in the application.

Components are similar to containers inserted in a page to hold information that forms Title content. After placing them, we must define its characteristics (size, border, color, opacity, etc.) according to the way we want our information to be displayed. Once a component has been edited, will be called following EasyProf® terminology, content element.

Actions

Any interactivity present in the Title, is always incorporated by using so-called actions, avoiding user the need to write any programming code.

We can create as many actions per page as necessary, and they can be edited whenever we want to thanks to a List of actions containing all actions related to the open page.

Utilities

Utilities are a set of tools available to the final user: Search, Glossary, print, notes, etc. We call them actions as well in this Manual because they are always activated by an action with the same name.

1.5 Edition environment

Main window

EasyProf® Main window is formed by two main sections: Table of Contents section and Page section.

Elements in the Main window:

Menu bar: Placed at the top of the window, it contains all aplication menus.

Tool bar: Bar with button that triggers different elements of the aplication in the editing mode.

Table of contents area: Located to the left of the main window, is the area dedicated to the Table of contents. In this section of the main window is where the organization of the Title content takes place. We can find 3 tabs on it to access either the Table of contents, the Master pages or the Pop ups.

Table of contents bar: Consisting on buttons which functions are applied in the Table of content area to manage the tree.

List of items: In the middle of the Table of contents area there is a zone where all existing elements in the active page or Master page are displayed, to help managing them. This list of elements allows a better definition of the item disposition. Elements in the top of the list will be displayed at the front while those placed at the bottom will be displayed at the back. Using this view we can preview which elements will be on top of the rest during an animation.

List or properties: In the bottom part of the Table of contents area allows us to describe and edit

all properties of the selected element.

Page section: Located to the right of the main window and much bigger in size is where pages are presented and edited.

Component Palette: Bar containing items for all different components that allow entering content in pages.

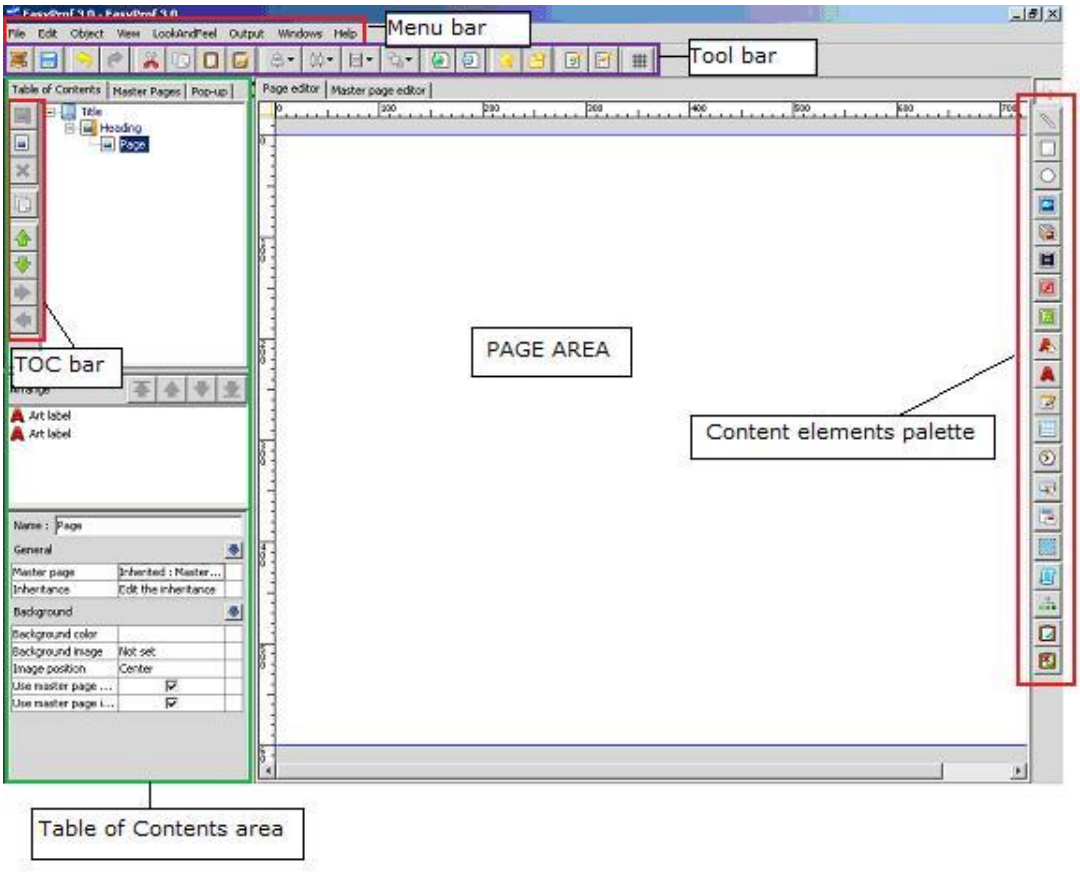
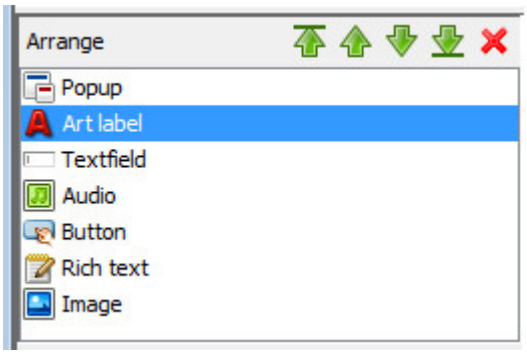


Table of contents area

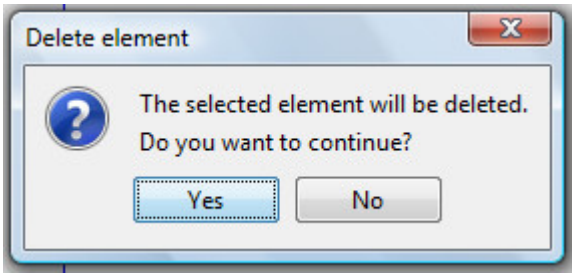
The Table of contents ares is one of the basic features of EasyProf®. The first question that users generally come across when setting out to create a Title is how to define and organize the content. This means not only making a typical tree with headings and subheadings, in other words the Table of Contents, but also the list of Master Pages and Pop ups.

The Table of Contents Area provides users the possibility of creating it right from the start and subsequently editing it whenever they wish to do so. Another feature of EasyProf® is that this and the other functions can be edited right until the very end.

Next, we find a list with all the content elements belonging to the selected page in the Table of Contents tree (when we select a Title or a Heading all elements of the open page will be displayed). Buttons displayed on the list allow us to organize all elements according to its position in the page, being displayed in front those that are placed in the superior part of the list and at the back those at the end of the list.



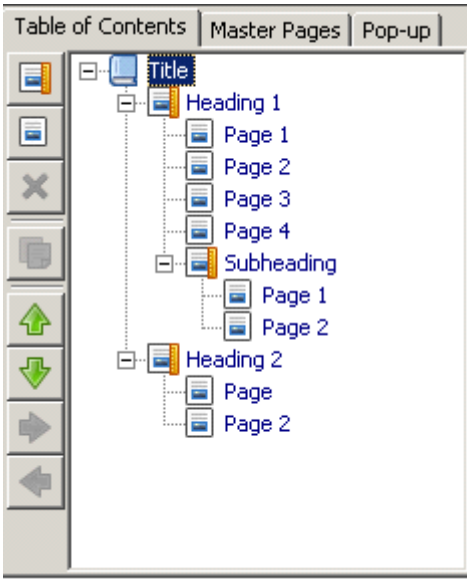
Any object in the list can be deleted by pressing the button with the red cross on it . In this case, as when deleting any other EasyProf® element, a confirmation message will appear.



Finally, we find a Properties list. From this window we can view and edit the properties of any selected item, in the page or in the Table of contents. That's how we can change properties of a component, a page, a Title...

The Table of Contents:

In the Table of Contents tab, the author creates the organizational structure of the material. This shows the various headings and subheadings as well as the pages included under each one.



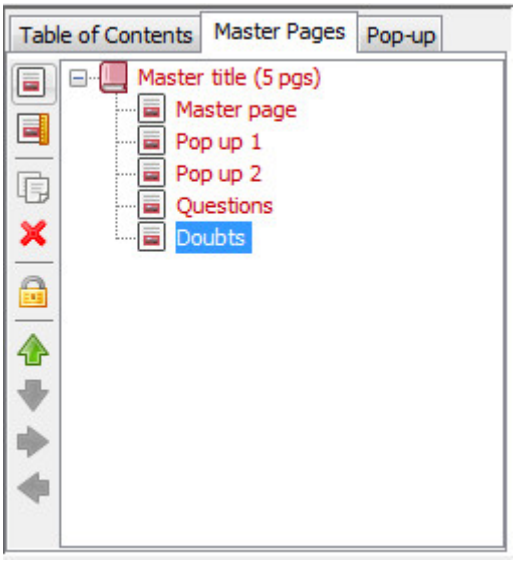
The headings are used to structure the content in a hierarchy. The content is kept on the pages. One important feature of the Table of Contents is that there cannot be any heading with a lower level than the pages or a higher level than the heading that is the name or title of the Title. Title means the overall piece

of work made with EasyProf®. This is created by default as a master heading in the table of contents with the name Title. There is no limit to the amount of headings, levels and pages that users can create.

The Master Pages

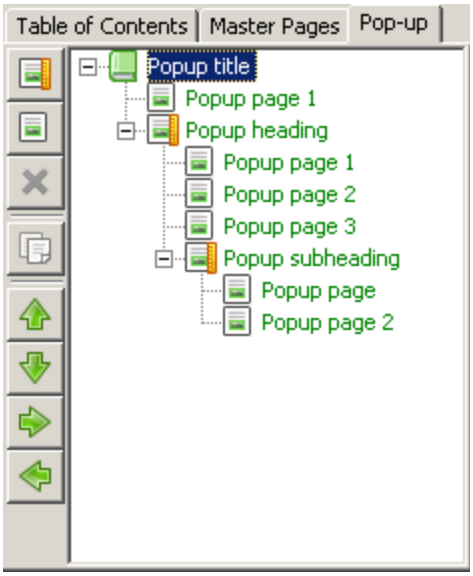
The list of Master Pages works in a similar way to the Table of Contents, although here the aim is not to structure the content, but to classify the various Master Pages that will be used as templates in the Title (concept of Master page will be treated in deapth in the next chapter). In this case, there is also no restriction on the amount and organization of levels that can be created.

Master Page idea is dealt with in other sections of the manual.



Pop up's

Pop up windows have got their own summary. The user can assign them a Master Page and customize them. During the content edition the user can decide when and how those pages will be shown.



1.6 User and Final user:

EasyProf® is an authoring tool. Using it, the author creates an editable and interactive file with multimedia content for many different uses: e-learning, presentations, corporate knowledge management, etc. Once all this process finishes, it is necessary to publish this Title to make it available to its intended public, which is generically called Final user.

This manual refers to both user/author and final user, although, understandably, more often to the first.

2. CREATING A NEW TITLE

2.1. The stages

The application gives the user complete freedom to create a Title. However, a very efficient way of doing so is as follows:

Create or Open a new Title

Define Title Parameters.

Prepare the material

Create the Table of Contents.

Define Master Pages

Include the content in the pages.

Include interactivity.

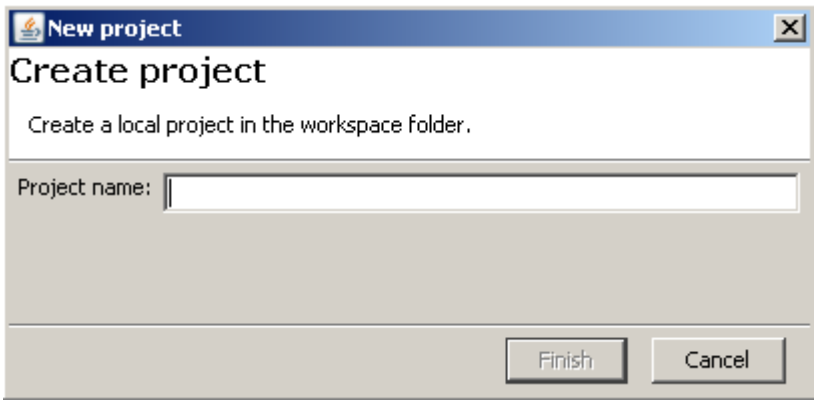
Publish the Title.

Whether or not this sequence is followed is the user's choice, but it is advisable for efficiency reasons. These reasons will gradually become clearer as you get further into the manual and/or gain knowledge of EasyProf®.

Opening a new Title:

When a new Title is opened, we have to define a working area also called Workspace. It consists in a new functionality of EasyProf® whose aim is to help us manage and organize our project different resources. If we open for the first time a Workspace or create a new project we automatically get a new empty Title. The way we have to manage the Title files, as well as the procedure for importing, exporting and unify several titles in one can be seen in detail in Sections:

(3.1 Working with files and 3.2 Export, Import and Fusion Titles from Chapter 3: Titles Edition.)



Defining Title parameters:

There are two sets of parameters to define through the following two options in the File menu:

File > Preferences

File > Title configuration

Preferences are those values or parameters that affect the application as such and that, therefore, will remain as default value in all Titles.

EasyProf® permits defining some common parameters for the whole Title. The Title Configuration can be set from the Properties Editor, as any other element of the project. For this we just have to position the cursor over the Title icon, then the different properties of the Title will be displayed in the Properties Editor that appears at the end of the left hand-side column (under the Summary Area and the Content Elements).

More details in sections:

(3.3. :"How to establish the Title Configuration" in "Chapter 3: Titles edition".)

Working materials preparation:

EasyProf® 3 has been designed in order to facilitate big projects elaboration. For this purpose it incorporates several tools in order to improve productivity. The ideal situation happens when the editor has got, from the beginning of the project, all the material he or her needs (images, videos, flash, audio …).

The editor can import or just directly drag all those material in the project through the Resources Manager. In case an image is not available yet he will be able to insert it later without any difficulty.

Creating the Table of Contents

When a New Title is opened, EasyProf® provides a simple Table of Contents structure with a page already open and ready to receive content. The best way to continue is to start by building the way the content is organized instead of creating new pages and putting content in them. The Table of Contents shows the way in which the user wants to structure the information. It has the classical form of a tree with headings, which in turn are divided into subheadings, and so on until. As many levels as necessary are available.

More details in section:

(4.1 How to work with the Table of Contents in Chapter 4: Table of Contents and Master Pages)

In accordance with the paradigm of the book, headings of any level are finally subdivided into pages. It is not possible to place headings or other pages under pages. Nor is it possible to place anything at a higher level than the Title. Between these two levels there is no limit to the number of headings and subheadings that the user can create.

More details in section:

(4.2 How to work with the Pages in Chapter 4: Table of Contents and Master Pages)

Defining the Master Pages

We mentioned earlier that the Master Pages are somewhat like backgrounds for the pages. Every page must always be associated with a Master Page (MP) and the MPs tend to have more than one associated page. The MPs act as if they were placed behind the page. Unless it has been defined as opaque, any page will show the elements of its associated MP. In order to help the user to distinguish between the elements that belong either to the Master Page or to the Page, the MP elements appear in grey color in the Page Elements view. In this view we can determine one element disposal with respect to the remaining, including those from the MP.

The MP work actively and dynamically. In other words, all the functions included in the content elements are also accessible through their associated page, which means that any changes made to their appearance or functions are updated immediately.

Designing and creating the MP at the start ensures that when you include content in the pages there will be no conflict in the positioning between the pages' elements and those of their MP.

More details in section:

(4.1 How to work with the Master Pages in Chapter 4: Table of Contents and Master Pages)

Creating content

Content elements have been already mentioned in the previous chapter as objects responsible for keeping contents of a Title. The way of inserting content in a Title is very similar for the whole elements, and is depends on its type and characteristics. For that purpose the Properties Window is an instrument of great help.

Some characteristics of the content elements are present in most of them, and for that exist the so called "Properties Editors" whose function is determine common characteristics such as color, text format, Properties Window, style, etc. .

For further details please consult:

(Chapter 5: Creating content.)

For further details about the different kind of content objects, please consult:

(Chapter 6: Beans and content elements attributes.)

Including interactivity

Once the content has been placed in the pages in the right position, you can start adding the interactivity that the Title requires: hot spots, timers, hyperlinks, buttons, etc.

The most usual way of doing this is to define actions between content elements on the same page, moving between pages, etc. Such actions connect two elements: the first, the Source, where the user starts the action by means of an event (by clicking the mouse or some other way) and the second, or Target, where the action will take place. It is possible to link several actions together to obtain complex results.

Any Title can be previewed at any time during its edition, to study behaviour of all content elements and actions.

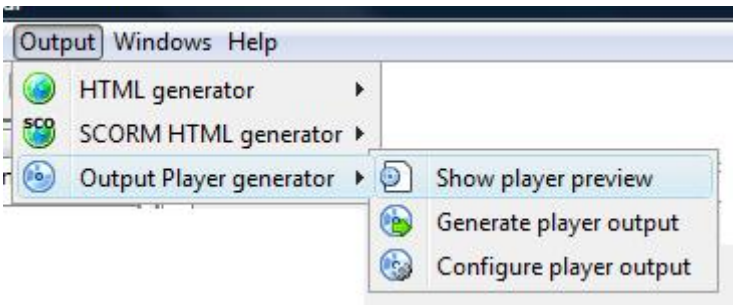
For further details please consult:

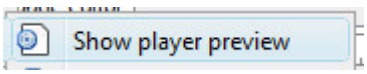
(Chapter 7: "Actions and Interactivy".)

Previews CD-ROM and HTML

Any page, heading or subheading content or Title can be previewed at any time during its edition, so that the user can check, before its publication, the aspect it presents itself to the final user. For this you have to select the option that corresponds to the wished type of preview in the Toolbar. :

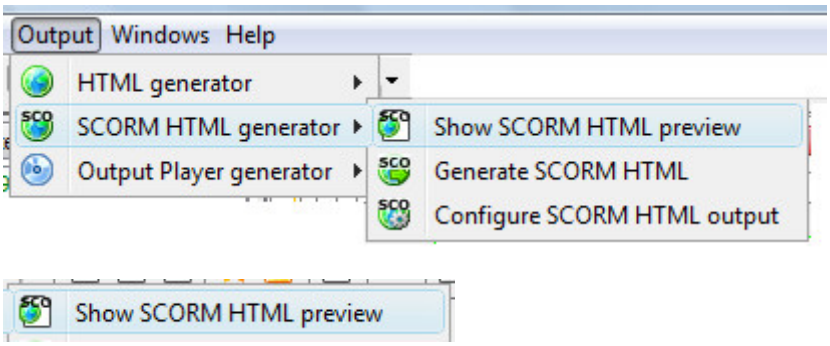
Preview CD-ROM: it offers the same aspect the Title will be when published for a CD-ROM.





Title > Show Player Preview, or click over the corresponding button in the Buttons bar.

HTML Preview: it allows us to preview a page, heading content or whole Title, displaying the exact same aspect that it will display when published in HTML and HTML-SCORM.



Note: *When we have some media files to include in Titles that have to be previewed in html, we should always distinguish between those that can be executed directly by the browser and those that must be opened by its own program (plug in), file that user will have to keep in his computer to play the file.*

It will be displayed, as discussed above, in a window that will let us choose between three types of preview. We only have to select the correct one and click on Accept.

Depending on the area selected in the Table of Contents we will modify the scope of the preview. If we are on a page, we will only be able to preview that page, so Page navigation action will not be effective in the preview. If we choose a Heading, we can preview and navigate all its pages. If we select a whole Title we can preview and navigate all pages in the project.

Title publication

Once we have finished adding interactivity to a Title, time has come to publish it. EasyProf® offers two different ways of publishing a Title: CD-ROM or Internet. The latter offers several modalities: HTML and HTML-SCORM.

More details can be found in:

(Chapter 9: Title publication)

2.2 File structure in EasyProf®

EasyProf® manages all resources asociated to a project in one workspace. First time we open the aplication it asks us to define the Workspace. From that moment on, EasyProf® wiii be responsible for locating all associated resources to a project in a way that we do not have to worry about its location. Any project may be exported in a compressed file that will incorporate all resources. Thereby we can be completely sure that no element of our project is lost when transferring it to another computer or while making a backup.

Another of the advantages of the Workspace is that he takes care of the naming of all files.Thus, even if we work with two resources with the same name this will prevent an acciental overwriting.

2.3 Workspace concept

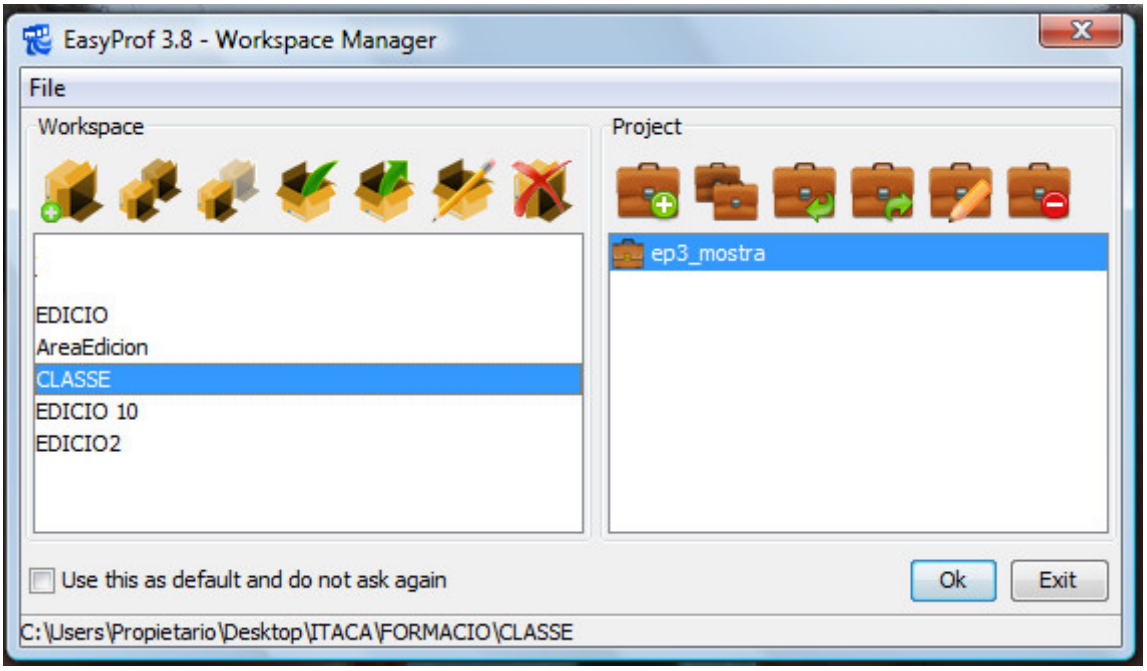
Although all files in a Workspace are located in a particular location in our computer that we can define and change at our will, we shouldn't think about it as a physical space, but conceptual. It is the virtual space where we develop one or more projects, regardless of the source of the resources we are going to use in the project. Once we have selected a Workspace for our project, it will be EasyProf® who will be responsible of managing all associated resources to the projects we develop in it. By doing so, all elements will be better located and there will be no accidental loss of resources or deletion by mistake.

2.4 Project management with EasyProf® Workspace

When opening EasyProf®, the application diplays the Workspace manager. If it is the first time that we have used the application, it will ask us to create a new Workspace and will propose a location in the file directory. We can create as many Workspaces as we want and place them in any folder in our system. From then on, when we open the application, Workspace manager will display all Workspaces previously

created, sorted according to last time they were used. Workspace more recently used will appear at the top of the list and selected so that we can open it immediately. Each Workspace will include all projects and their resources.

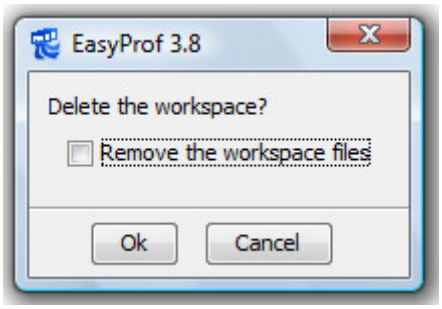
From the Workspace manager we can create new Workspaces, copy, rename them, change their location as well as export and import them.



When we copy a whole Workspace, all projects contained in the original Workspace will be duplicated in a new location.

In case we move a Workspace, all the projects it contains will be copied in the new location to be then deleted from its original location.

By deleting a Workspace, we remove all projects in it, but not necessarily all resources that they contained. When we delete a Workspace or a project, application will always display a confirmation warning. In such warning we can choose between two options, erase all resources or leave them in case we want to use them in another project later on. If we decide not to erase all resources together along with the workspace, there will be a folder with all resources in the directory where Workspace was originally located. The only way to delete all these resources later on will be using the system file browser.



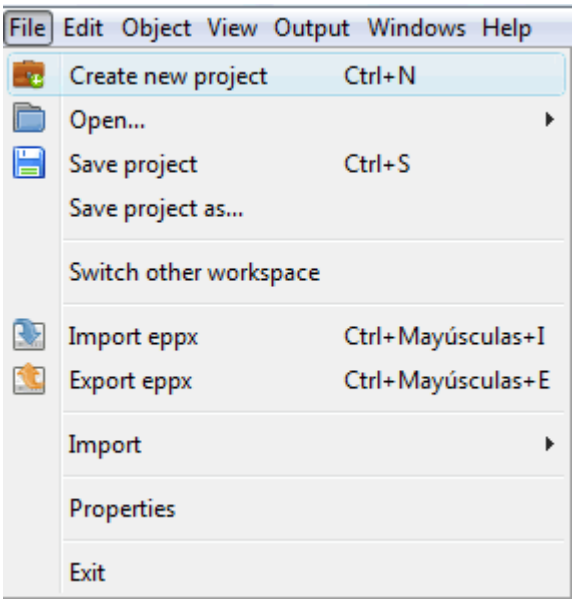
The Workspace manager allows us to delete individually projects from a particular Workspace, as well as exporting and importing complete Workspaces to a single file. Such file will always include, in a compressed format, all project files and those associated resources.

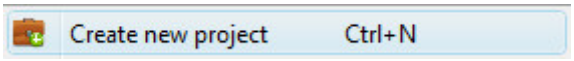
We can create as many Workspaces as we need an we may as well locate all our projects in a single Workspace. The option we choose will always depend on our editing needs.

2.5 Working with the Workspace

Despite the fact that Workspace manager opens by default when we log in EasyProf®, we may as well use it while working in a particular project. From the menu File we can always open the Workspace manager to switch to any other Workspace. If we want to create new projects in the current Workspace, or rename the project we are working in, we should use File menu or buttons in the Toolbar. If what we want is a copy of the project in the current Workspace we should use option Save as. Changes made to the project since last time we saved it will only be saved in the copy.

With EasyProf® we can have two projects simultaneously as long as they are in different Workspaces. In that particular case we can copy and paste any elements we want from one project to the other.





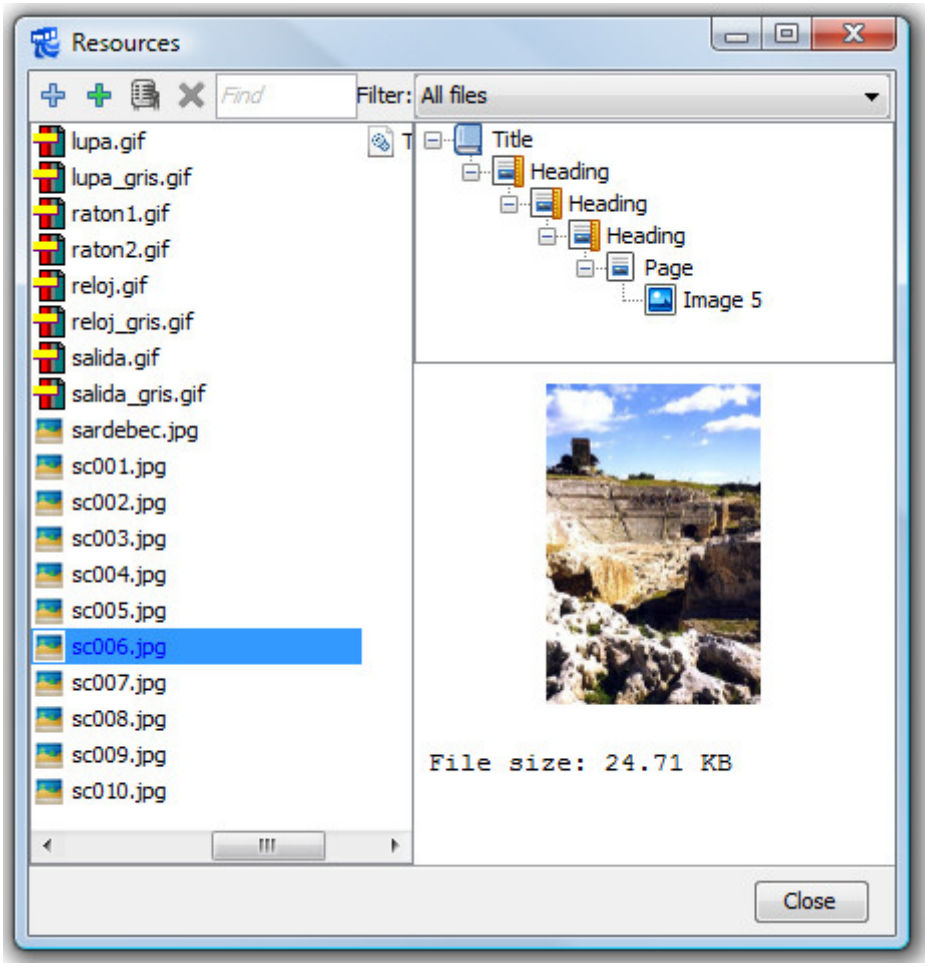
2.6 Resource manager

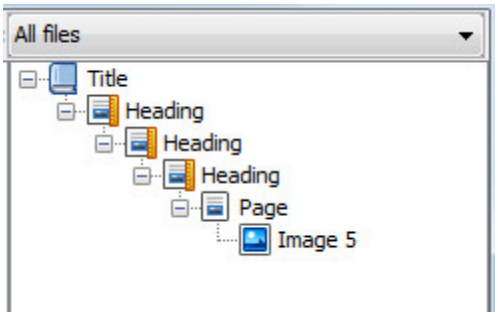
To make working with multiple multimedia files easier and prevent loss of material, EasyProf® incorporates a Resource manager which aim is to focus location and management of pictures, videos and sound files. Each time a multimedia resource is added, it will be kept in the Resource manager. Its physical location will be in a folder in the Workspace, so that when we need to export or perform a backup of the Workspace, resources will be incorporated as well.

We can add resources using the Add button or by dragging and dropping multimedia elements in the Resource manager from the system file manager.

To open the Resource manager, we must select menu Windows > Resources. We may as well open it from resources' properties (for images, videos and audio files) by clicking the button for resource selection.

Resource manager has a main area displaying all resources associated to a project. We can find in it images, videos, audio files and flash files. Those displayed in black have not been used, while those in use in the project are displayed in blue. When a resource is used more than once, a number in parentheses appears besides its file name, indicating the number of times it has been used. When an element has been used in a project, we can see a tree, in the top right window, displaying project structure and page where this resource has been used.





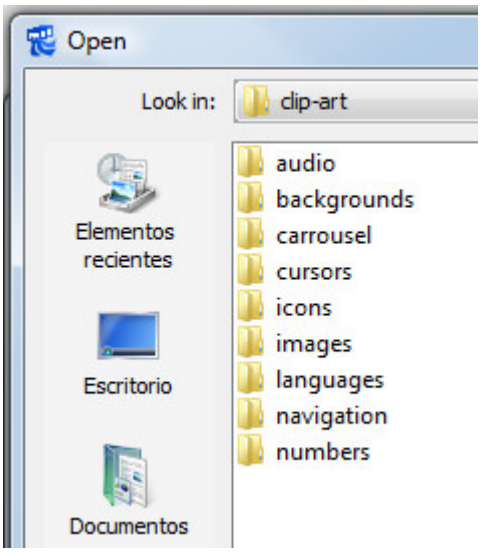
Under this tree, a preview of the file, its size, duration (when speaking about audio an video) are shown. Resource manager previews images, audio files, videos and flash files. In this case what is displayed is the media player installed by default for the user, with its navigation buttons.

File size: 119 KB

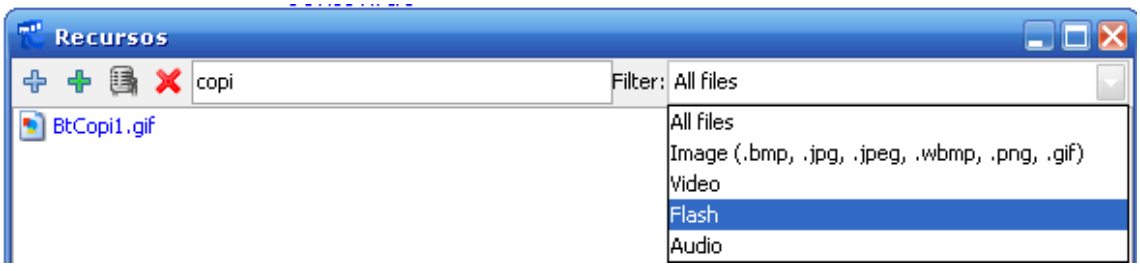
There is a toolbar at the top of the Resource manager with four bottons.

First button is used to add new resources. If selected, system file browser appears so we can look for the new resource and select the ones necessary for our project. It is also possible to add grouped resources selecting them in the system file browser and dragging them to the Resource manager.

A second button is used to add EasyProf®'s Clip art files. When installing this application folders with sample files are created and are accessible by clicking this button.



We finally find a search box that makes file location in the Resouce manager much easier. If we write a word, the manager will display only the files in which name appears the previously written text. Beside the browser we find the filter drop-down menu.

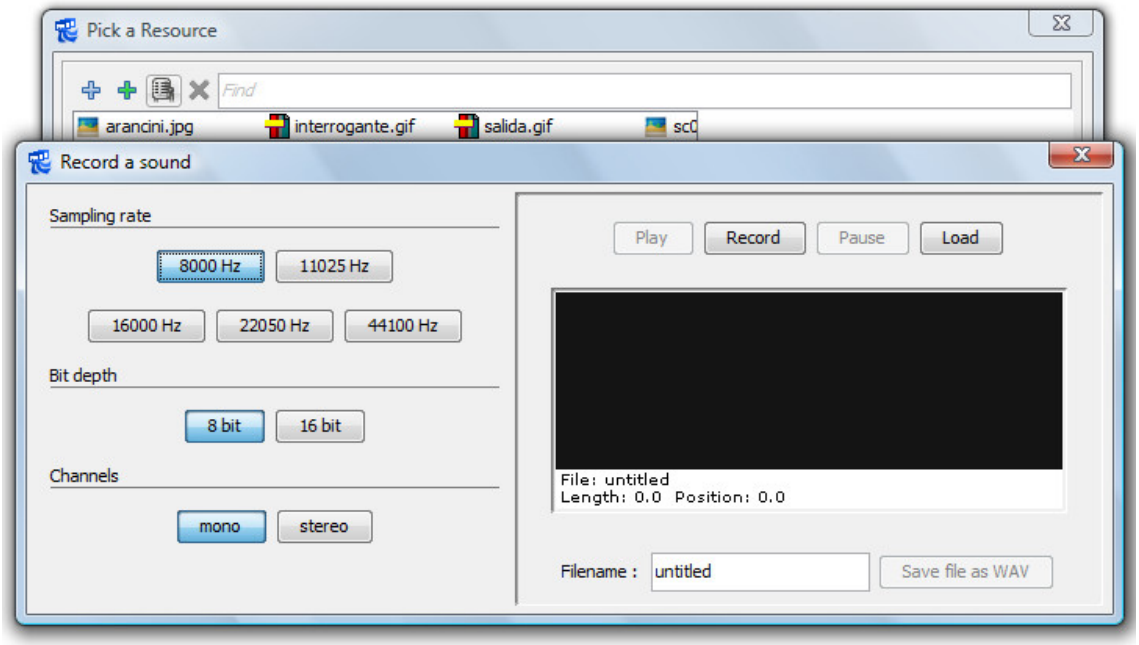


Filters allow us to show only the selected type of file. We can show images, video, audio files and flash files.

There are two more buttons in the Resource manager toolbar. Last one is a red cross used to delete the selected resource. Only files that are not currently being used can be deleted. This resource will be deleted from the manager, but not from its original location in the system. If we wish to re-add a deleted file, we can do so by simply clicking on the Add button and looking for the original resource again in the system. Once the project is finished it is avisable to delete all resources that have not been used (the ones in black colour) to optimize tool's operation an reduce size of files in case we want to export it.

The third button is a microphone. When selected it displays an audio recorder that allows us to create sound files. To do so we need to have installed a microphone. Recorder creates files in uncompressed

.wav format. Such files have an excellent quality (similar to an audio CD) but because they are not compressed, they are very big files. That's why it's suitable for short audio recordings. If we have to record a long audio file we can do it from the recorder anyway but it is advisable to convert it to a compressed format such as MP3 with an external encoder.



Audio recorder allows various parameter configuration. Sample rate, bit depth and number of channels can be determined. First two indicators refer to the sound quality. The higher the number, the higher the quality selected, although the final file will be larger. Default setting offers the lowest quality, enough to record voice with a quality similar to that offered by traditional radio. Channel selection allows us to record in mono (one channel) or stereo (two channels). Stereo recording takes twice the space than that taken by the mono recording, which is the default option since it is good enough to record audio files.

Once recording quality has been selected we simply have to press button Record. Once recording is finished we press Pause, write the file name in the field below and press Save file as WAV. This file will be automatically kept in the project's Resource manager.

3. EDITING TITLES

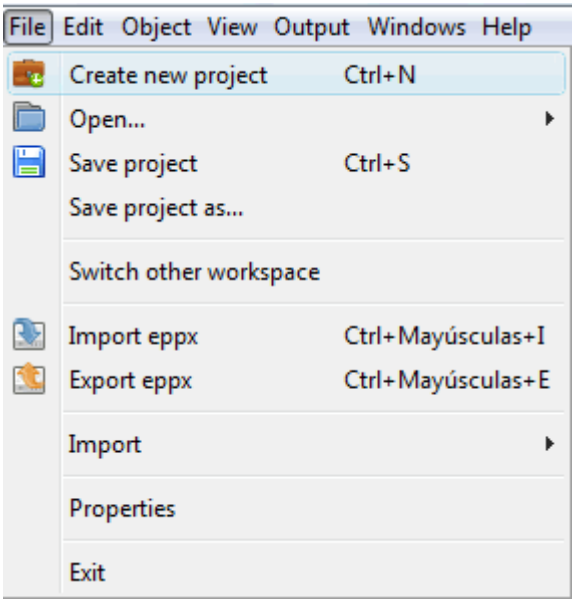
The two previous chapters described the concepts behind the design and operation of EasyProf®. Starting with this chapter, we will provide a detailed presentation on how to use the application. We will begin with the most general, creating and editing Titles.

3.1. Working with Files:

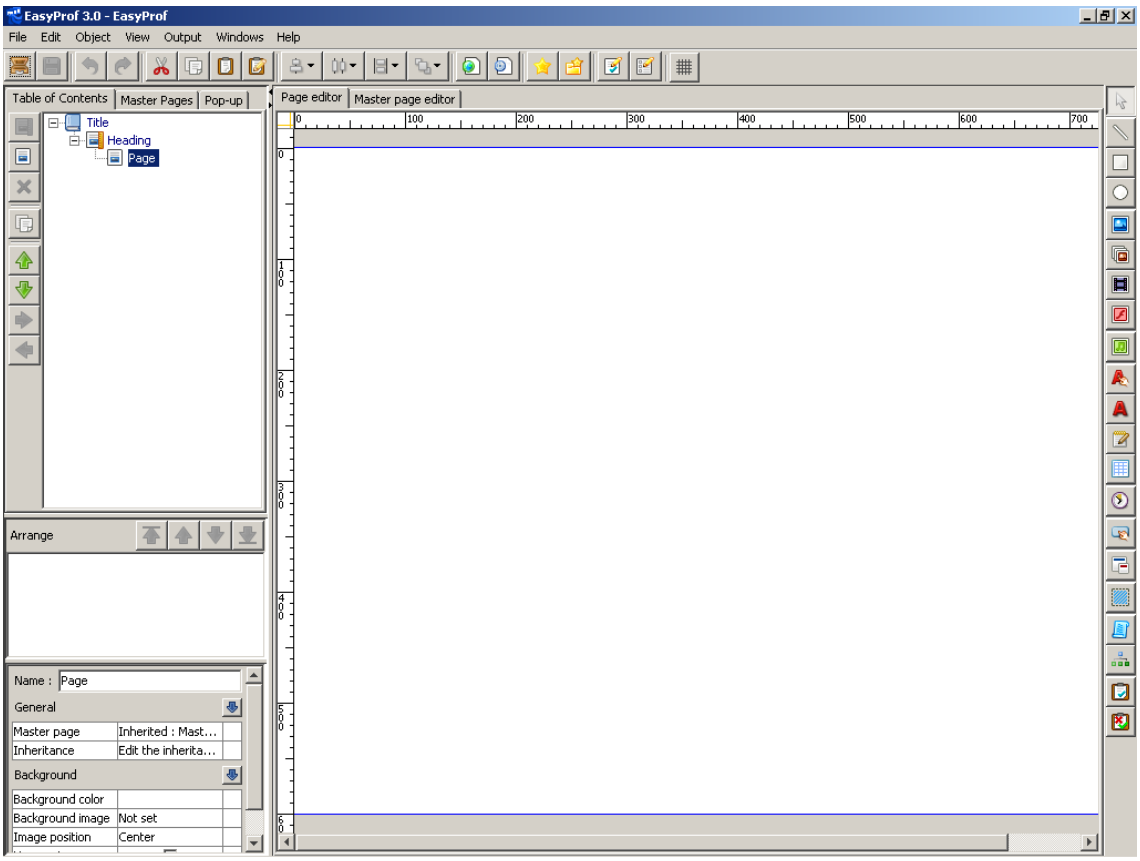
New Project

When the application is opened the Workspace Manager opens itself automatically, and shows all the existing working areas as well as their related projects, ordered according to the last time they were opened. From the Workspace Manager we can, for instance, open the last Project in which we are working (that appears selected by default) or create a new one by using the correct button.

If you are working with a file and want to create a new document, drop down the File menu and select the New option, or click on the relevant icon in the Toolbar.



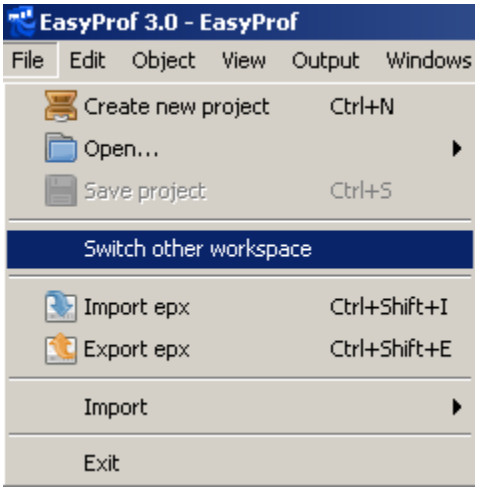
Then will be displayed the Workspace Manager window where we can create a new Project in the current Working Area from the New Project button on the right hand column, corresponding to the projects management. If we want to create the Project in another Working Area, we will select the workspace in the left hand column where we want to locate it and then we will click over the New Project button in the right hand column.



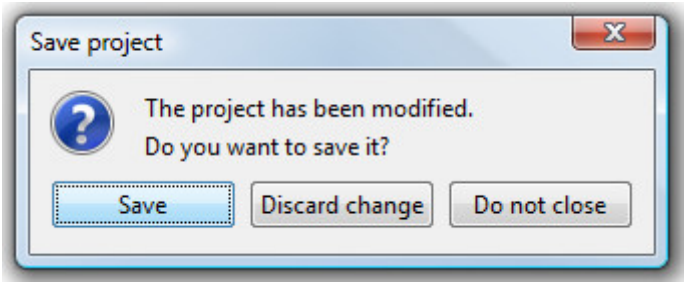
Aspect of a new Title once created.

Opening a Title

In order to open a Title which has already been saved while we are working in another one we have to open the Working Areas manager through the option File>Switch other Workspace or click over the corresponding icon on the Toolbar. .

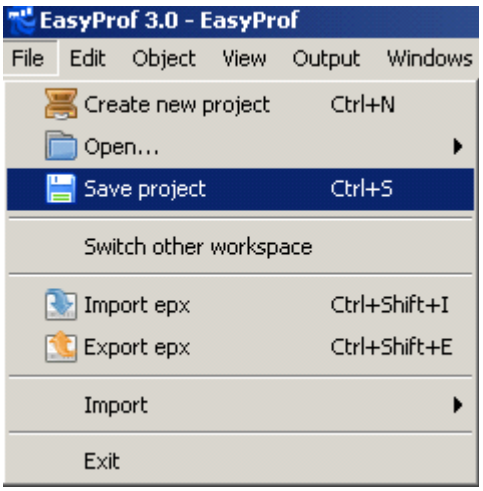


Whenever a Title is active and open, window asking us to save changes in the current Title will appear first.



Afterwards, the Workspace Manager will appear in which you have to select the desired Project.

Save



The Save option allows you to save the changes made to the Title. You can choose it by selecting the menu option:

File > Save project

Or by clicking on the relevant icon in the Toolbar.

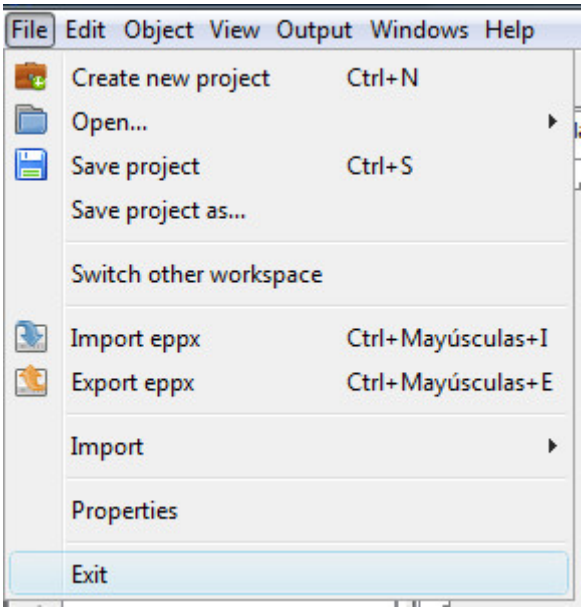
Bear in mind that when you save the Title, the changes made will be saved and it will no longer be possible to go back to the way the Title was before. If you want to save the previous statuses, you must save them under different names by using the Save as option that will open the Workspace Manager.

Save as

In order to save a Title for the first time, we just have to click on the "save" button, as EasyProf® fixes the files location when we create the Workspace, before beginning to work with the files. If you want to make a copy of a Workspace or Project with another name use the option Workspace Manager > Duplicate. It will copy all the files from the selected Workspace with the chosen location and name. During the editing of a project we can save it with a different name using the option File > Save as... We will be able then to chose a new name for the project that will be saved in the same Workspace.

Exit

In order to exit the Title, you must open the File menu and select the Quit option. If the Title contains unsaved changes, a warning window will ask if you want to save the changes, providing three options: [YES], [NO], [CANCEL].



You can also exit the Title by clicking on the [Close] icon located in the upper right-hand corner of the EasyProf ® window.

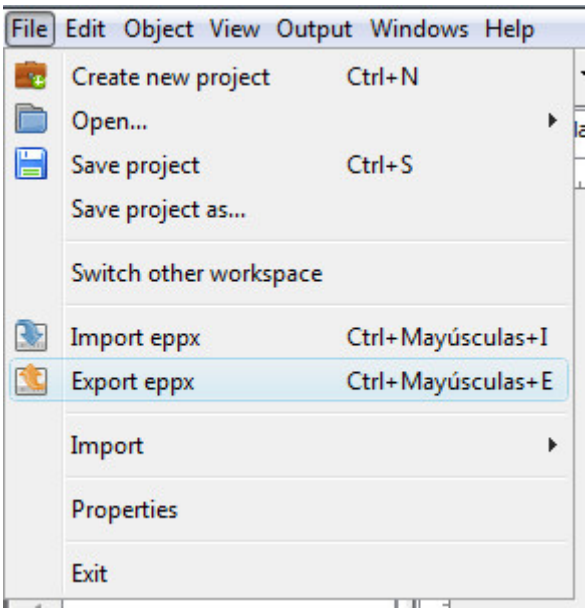
3.2. Exporting, Importing and Merging Projects:

3.2.1 Exporting a project

In addition to saving current project in the Workspace, export files of a project can be created to be used later on in other Workspaces by importing.

To export we must use option File > Export eppx. File browser will appear asking for a location for the new

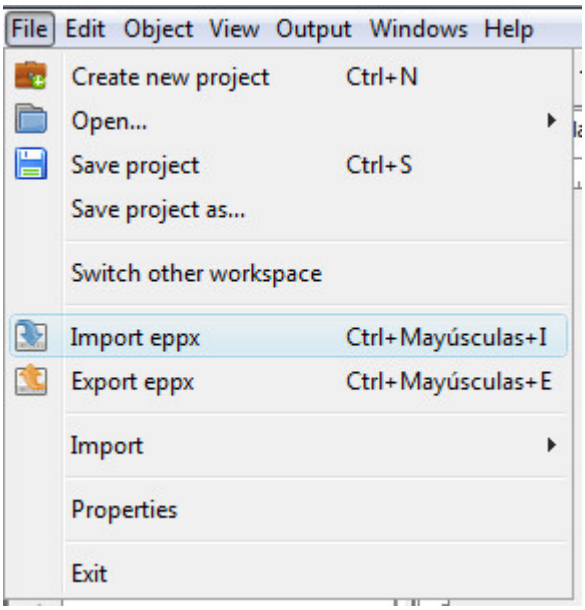
file. A compressed file will be created for further importation.



Projects can also be exported from the Worspace manager as we will se in section 3.3 Export and Import from the Workspace Manager.

3.2.2 Importing titles

It is the reverse operation to export. Files must be in .eppx format and must have been previously exported with EasyProf®. Done using window shown below and which is acceded by menu option File > Import file.



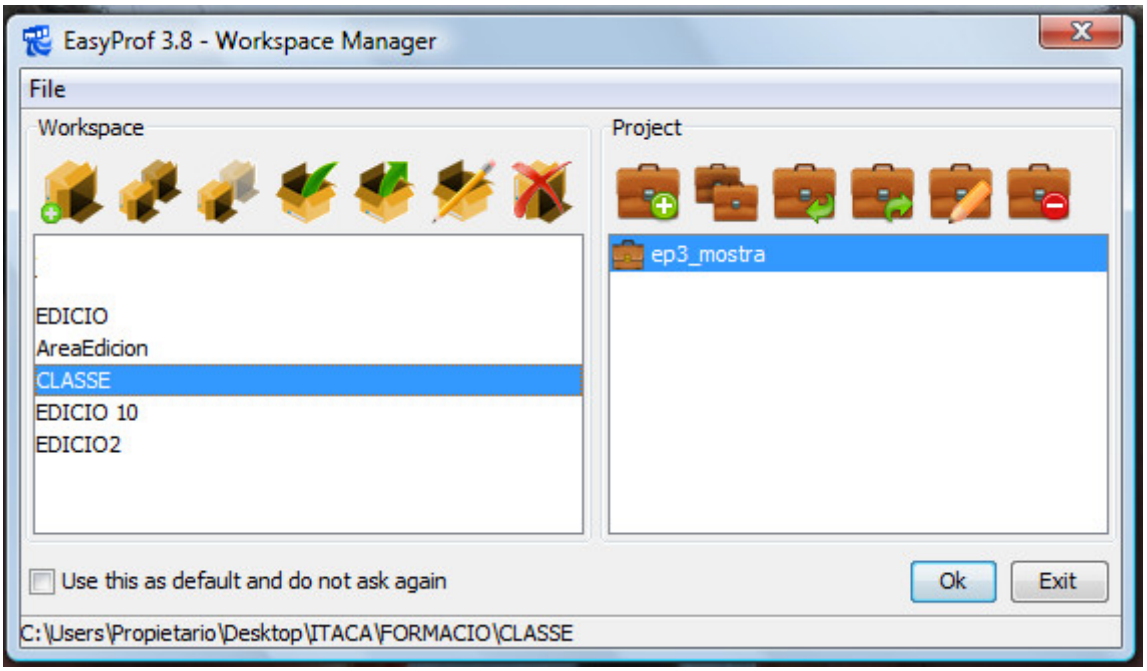
This is the file browser window. If no .eppx file is chosen, importation will exit with an error message indicating that file format is unknown.

Projects may also be imported from the Workspace manager, as we will see in section 3.3 Export and Import from the Workspace Manager.

3.3 Export and Import from the Workspace Manager:

The new EasyProf® working philosophy, based in Managers that facilitate the projects management, brings new import and export options. From the Workspace Manager, it is possible realizing all those actions in an easier way, but over all making sure that the whole resources are under control in the best location for their future use.

While working in a specific project we can open the Workspace Manager by selecting File>Switch to another Worskspace. We will find two columns in the Manager. The one from the left-hand size refers to Working Areas or Workspace. The right-hand size one refers to the Projects included in those areas.



In the Workspace zone we can find a menu with several options:

Add: Permits creating a new Workspace

Copy: Creates a new Workspace that includes the projects from the previous one.

Move: Creates a new Workspace includes the projects from the previous one, and deletes the original one.

Export: Exports the Workspace with all its projects

Import: Imports the Workspace that has been previously exported.

Rename: Allows us to change the name of an existing Workspace.

Delete: Deletes the Workspace with all its projects and resources

In the Projects zone we find a menu with several options:

Add: Used to create a new Project.

Copy: Creates a new Project including all data from the previous Project.

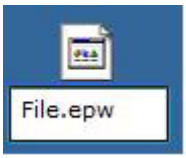
Export: Exports the Project with all its resources

Import: Imports a Project that has been previously exported

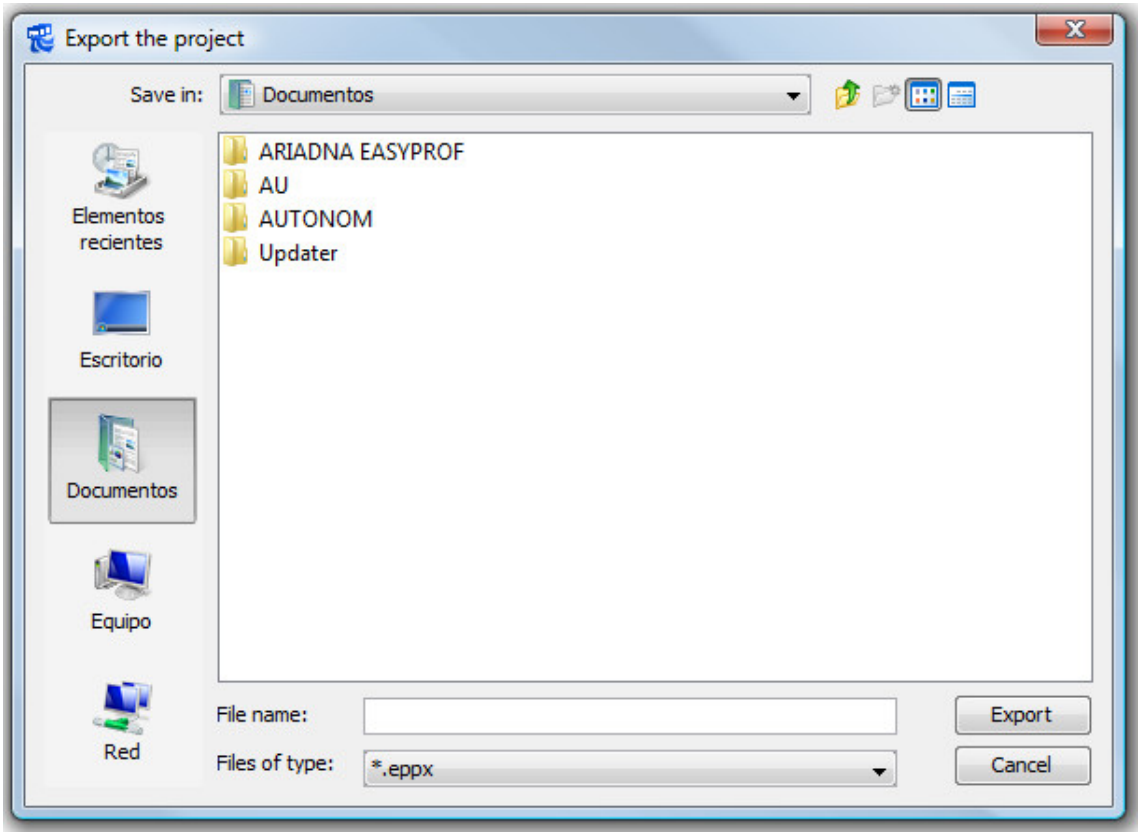
Rename: Allows us to change the name of an existing Workspace.

Delete: Deletes the Project with all its resources

In order to copy a Project from a Workspace to another Workspace, we will proceed as follows. We will select the Project in the right-hand column and click over the Export option. A navigation window appears asking in which location we want to save the exported file. We will write the name we want to give it and will click over Export. It will generate a file with the .epw extension.



Next, in the right-hand side column, we will select the Workspace where we want to copy the project and then we click over Import in the menu over the projects area, on the right. Then a navigation window appears where we must select the .epw extension file that we had created previously, and we click on the Import button.

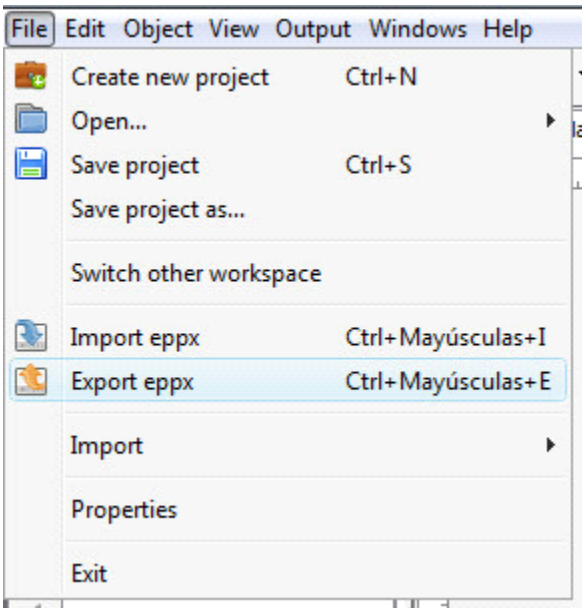


In the selected Workspace a new project will appear with all its associated resources.

Blending of titles

In addition to exporting a project from the Workspace, you can also create exportation files of parts of a project, to include them later on in other projects and even in different Workspaces through importation.

To export part of a project we must select the chosen pages in the TOC and use the option File > Export eppx.

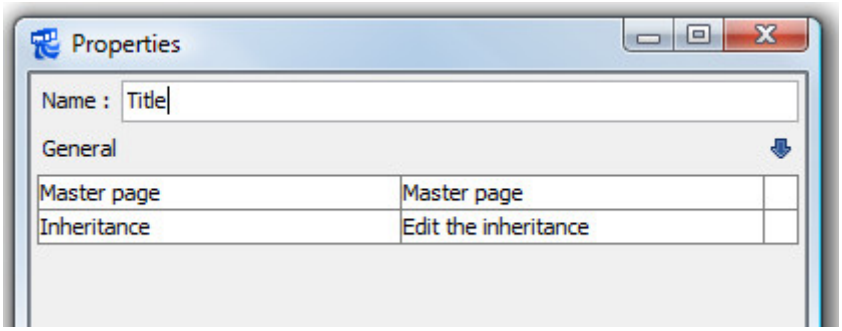


The eppx. extension corresponds to a file of parts of the title in compressed format. Such file will generate a copy of all the selected pages along with their actions and resources. File browser will appear asking for a location for this new file. A compressed file will be created that will be importable from any new project using the option File > Import eppx.

File browser window will open alowing us to look for the .eppx file previously generated.

3.4 How to set Title Settings:

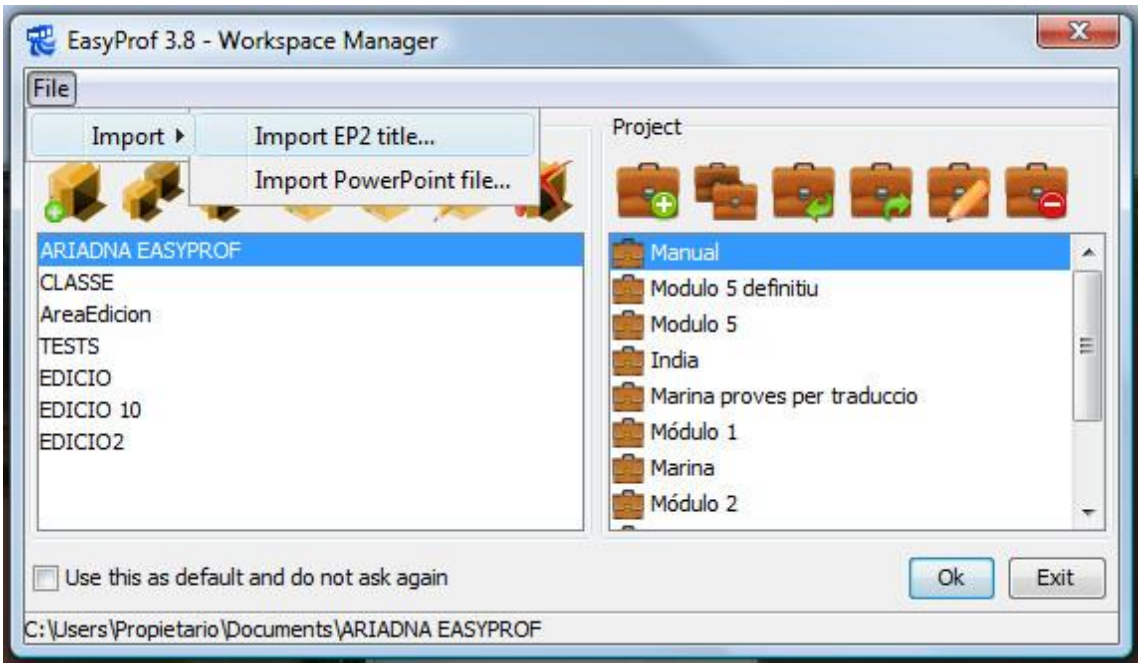
We can set some general properties of the project from the application itself. By selecting the Title icon in the Table of contents, we will find its properties in the Properties Editor.



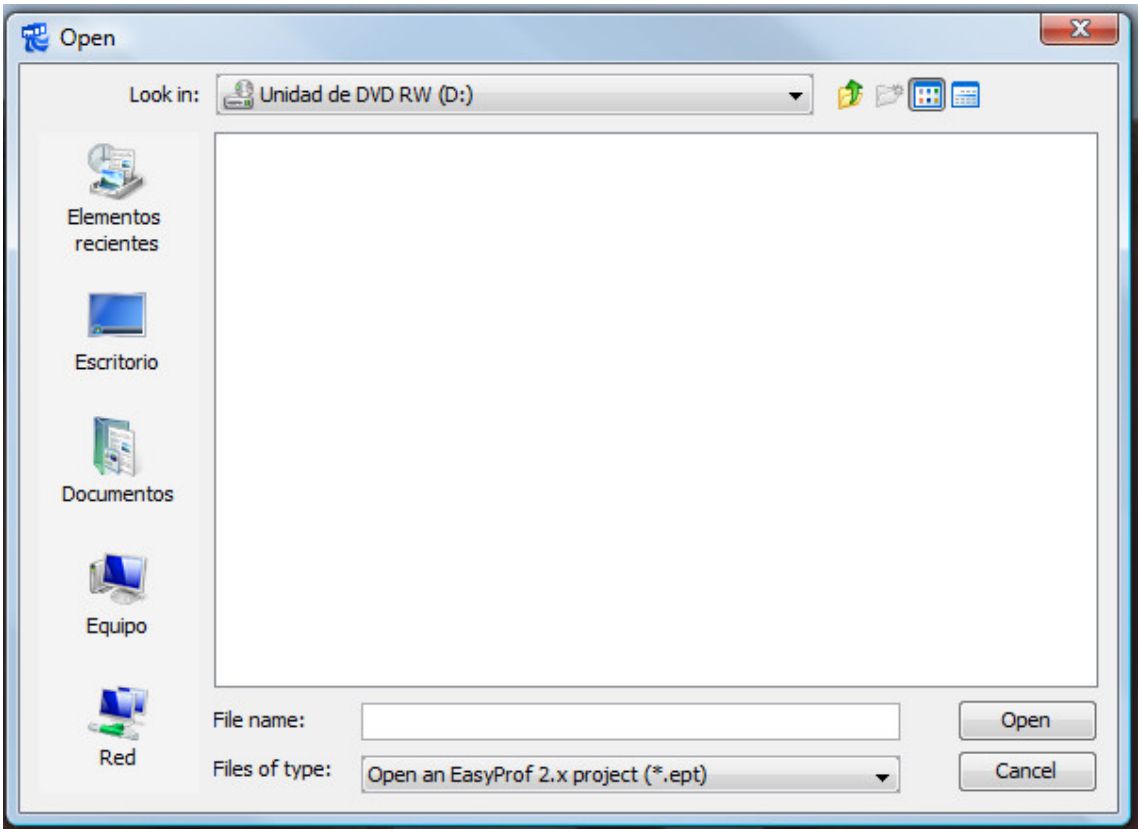
From this view, we can define default Master Page for all new pages as well as edit how will features be inherited in that Master Page. Inheritance allows us to customize aspects of what elements are going to be shown in a page and how.

3.5 Previous versions file importation:

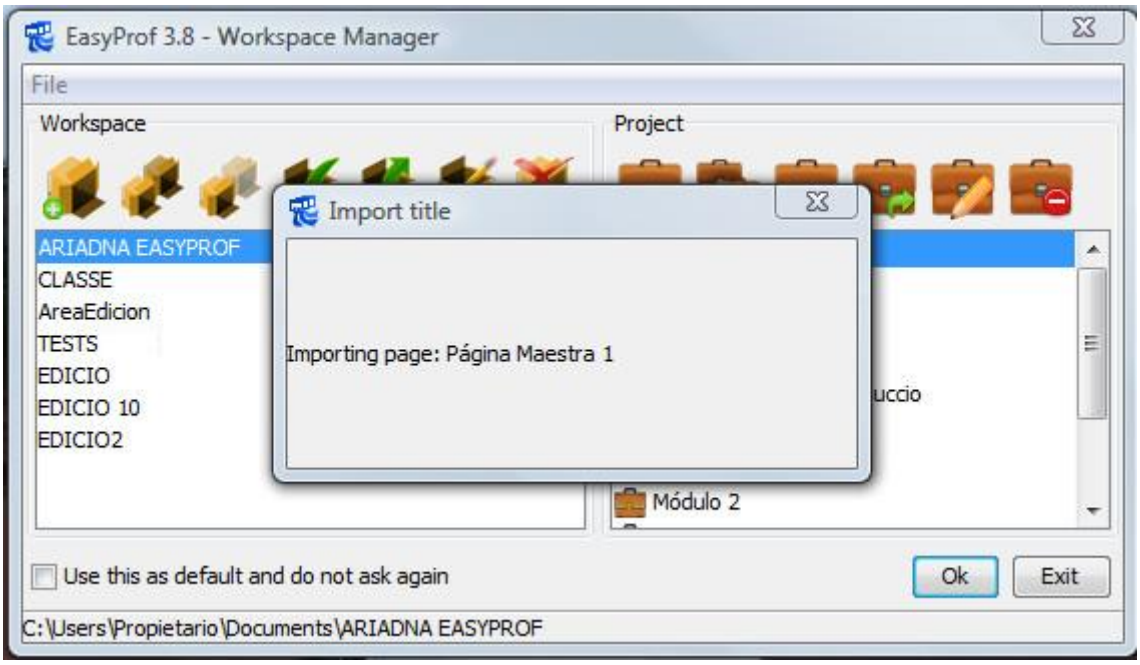
Any project created with EasyProf® 3 may be opened without any problem in later versions (3.1, 3.2, 3.3,...). When we open it for the first time with the more recent version, the program will automatically make all necessary changes. Such conversions will anyway be consolidated the first time project will be saved. EasyProf® 3 allows you to import files created in version 2 of the application. From the Workspace manager we must select File > Import EP2 title...



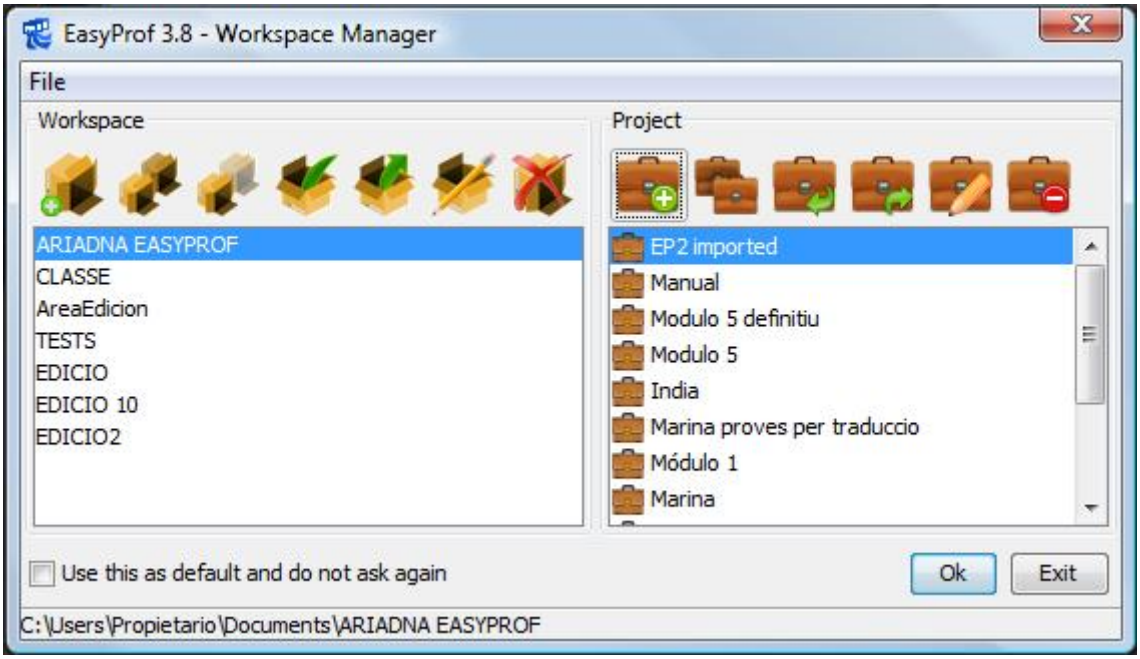
System file browser will appear and we will search for the .ept file that we wish to import.



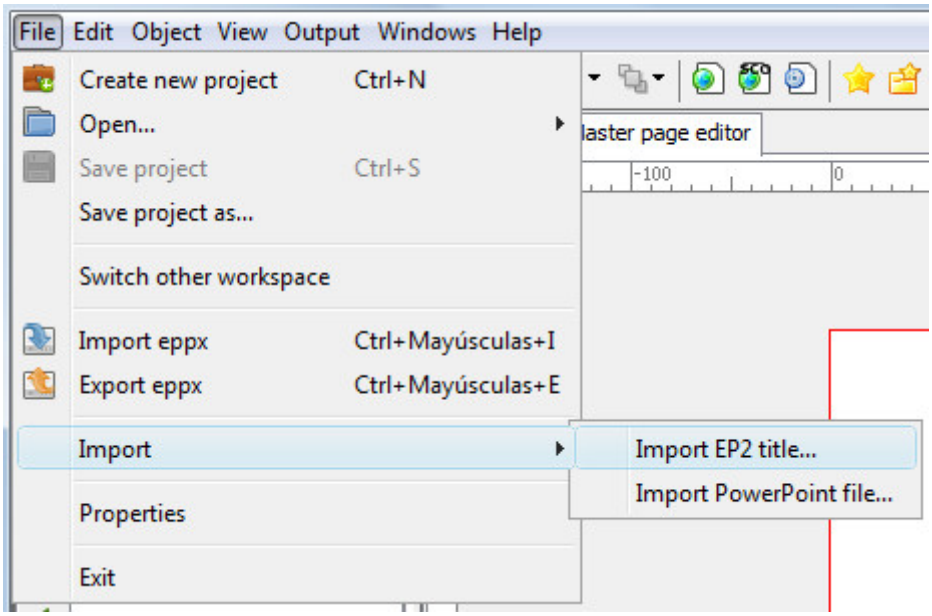
A warning window will show us the imported elements.



In the end, EasyProf® 2 title will be imported as a new project in the selected Workspace.



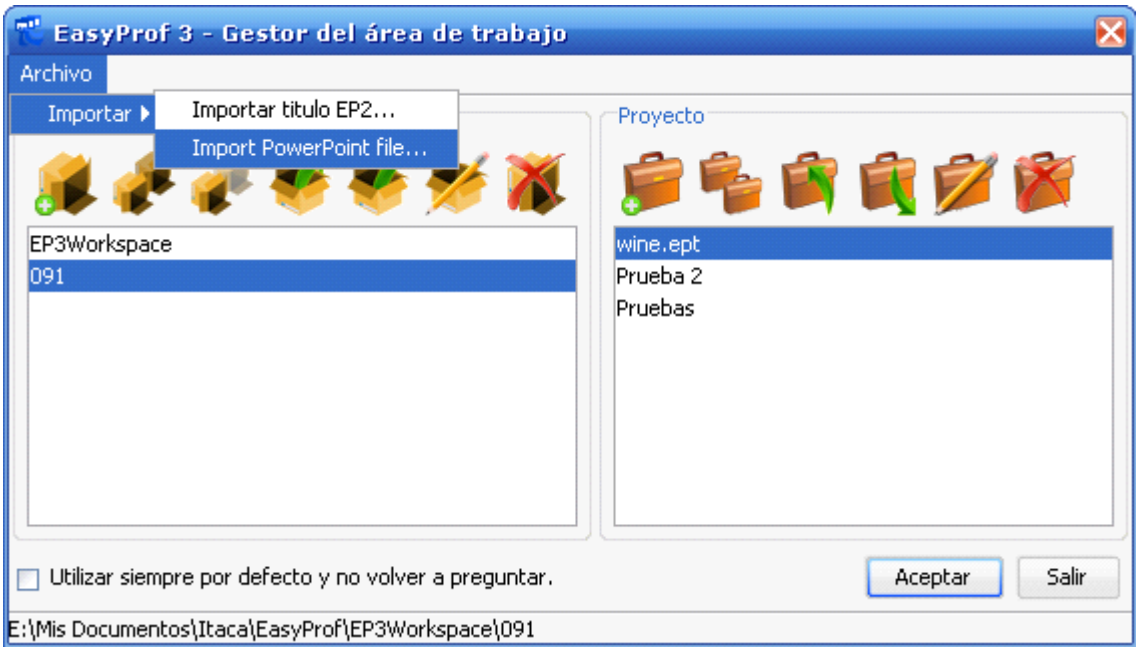
You can also import from within the application by clicking on File > Import > Import EP2 File and from there, proceeding as if importing from the Workspace manager. In this case, any open project will be automatically closed and a new one with all the imported data will be opened. This new project will be saved in the already active Workspace.



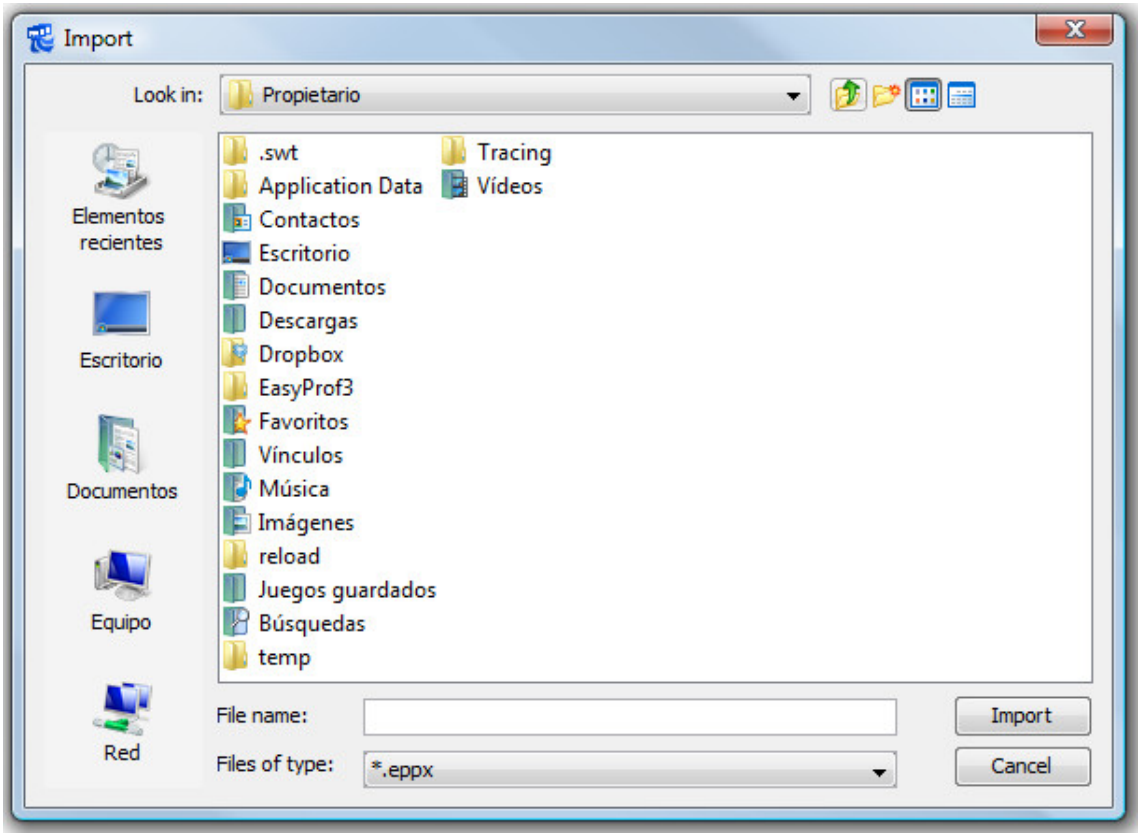
NOTE: EasyProf® 3 includes features and elements not available inprevious versions. This implies that importing some elements and features may cause some changes to adapt to the new version. Once file import is done, we recommend a review of the whole project, page by page.

3.6 Power Point importation

EasyProf® 3 allows you to import files created with Microsoft Power Point. From the Workspace manager we must select File > Import Power Point file...



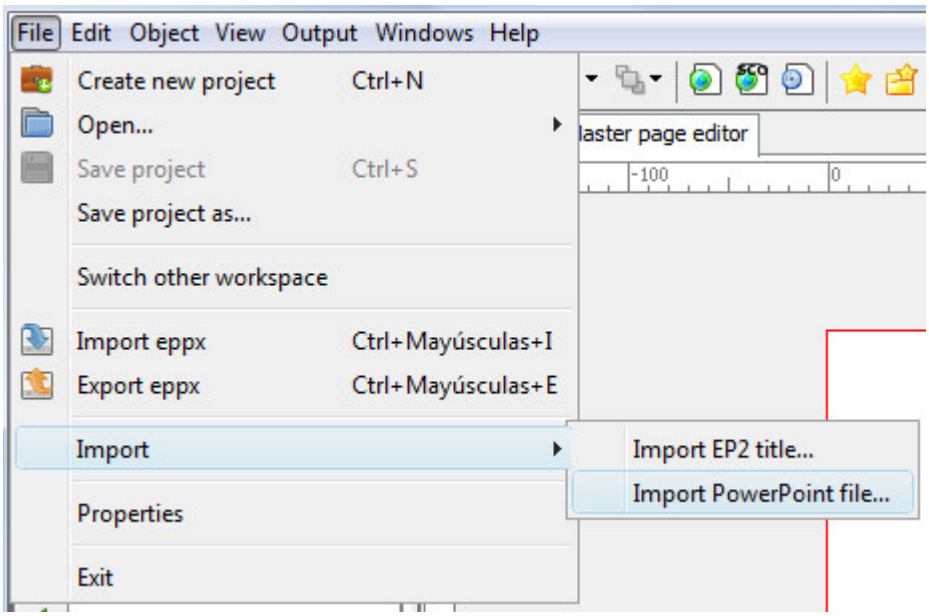
System file browser will appear and we will search for the .ppt file that we wish to import.



A warning window will show us the imported elements.

In the end, EasyProf® 2 title will be imported as a new project in the selected Workspace. This project will have a page corresponding to each Power Point slide. It will include all graphic and text elements (images, shapes, lists, audio and video) in the same position they occupied in the slide. Similarly, EasyProf® will automatically create navigation buttons to move back and forth in the content. Such buttons will be in the Master Page and can be customized to fit in the general design of the project.

You can also import from within the application by clicking on File > Import > Import Power Point File and from there, proceeding as if importing from the Workspace manager. In this case, any open project will be automatically closed and a new one with all the imported data will be opened. This new project will be saved in the already active Workspace.



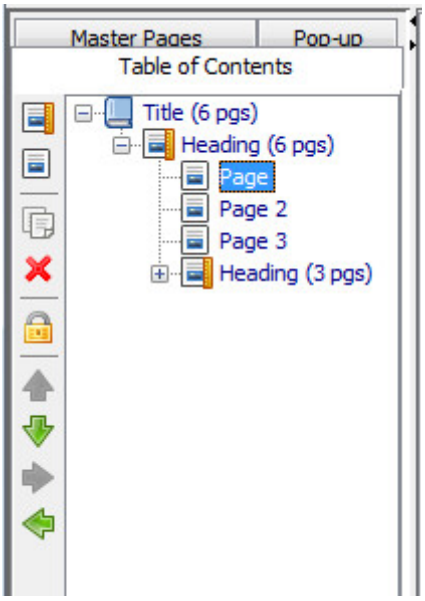
NOTE: EasyProf® and Power Point are programs designed for different uses, so they have different elements and functions. This implies that importing some elements and features is not always possible, as for example some auto shapes that are incompatible with EasyProf® figures. Once file import is finished we recommend a review of the whole project, page by page.

4. WORKING WITH THE TOC AND MASTER PAGES

4.1. How to work with the Table of Contents

The Project's Table of Contents is made up of the following components:

- Headings.
- Pages.



Headings

The headings define the hierarchical classification of the content using an organizational structure of levels, sublevels etc. They always have a Master Page (MP) assigned, as each one inherits the MP from its master heading, which in turn passes it on to its subheadings.

The highest-level heading in the Table of Contents is the Title. When EasyProf® creates a new Title, it gives it the name Title by default.

The most frequent way of organizing the Table of Contents is known as top-down. This form of organization is based on a structure that goes from the general to the specific. There are other alternatives available to users, which EasyProf® supports through the various options and functions included in it.

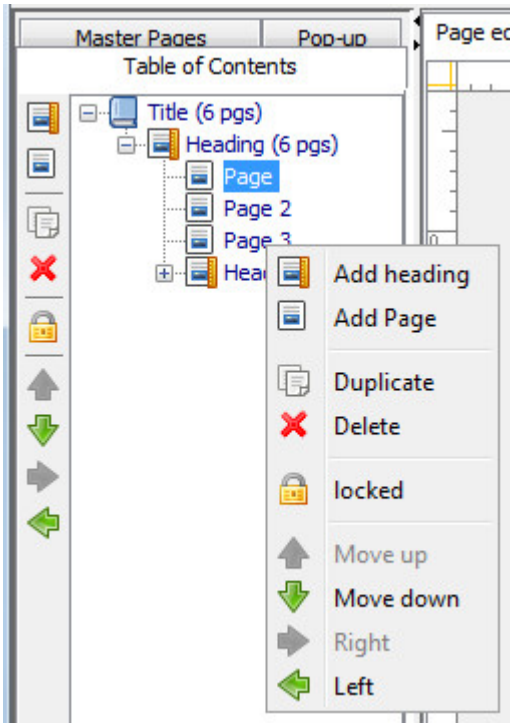
Pages

The end user will see the Title's content as a sequence of screens. As the book is the paradigm for EasyProf®, these screens are called pages and, as is the case for a book, the pages are located sequentially in the Table of Contents. When any page contains a Test, it is displayed with a different symbol.

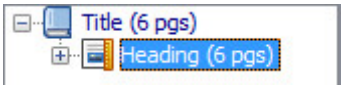
To the left of the Table of Contents, we see a serie of icons that allow us editing the page.

Add Heading
Add page
Delete
Duplicate (Page or Heading)
Block (Title, Heading or Page)
Move upwards
Move downwards
Move to the right
Move to the left

All these functionalities may be activated as well from the contextual menu that opens when we right click on Table of Contents area.



Next to the name of the Title and Headings, appear the number of pages they content.



As EasyProf® allows authors of a Title to include interactivity; they may provide end users with the option of deciding what page to go to after the current page in progress, due to the navigation actions that can be included.

Titles created using EasyProf® are multimedia and therefore the pages can contain any kind of content: text, audio, video, etc.

To learn more about how to put content in pages please see section:

(Chapter 5: Creating Content)

The pages are the lowest-level component in the Table of Contents. When they are created they are given a default name depending on their position in the structure at that time. The name does not change even if a page is moved around the structure of the Table of Contents. You can change the name at any time you wish. If users want to edit the Table of Contents when they are creating a Title, they can move the pages up and down through the structure, or even change the heading hierarchy.

The Table of Contents bar

The Table of Contents bar is used to carry out actions on the Table of Contents' components. This chapter describes the functionality of all these buttons. In some transformations such as duplication, deletion and movement of items in the Table of Contents tree, we can take profit from multiselection. It will allow us to perform all these actions simultaneously on all of them. Different ways to perform a multi-selection are:

(Ctrl) + Click: Adds a new item to selection.

(Shift) + Click: Allows a continuous selection.

Buttons in Table of Contents bar are the ones displayed in the previous figure.

How to create a heading or a subheading

1. If you want to create a Heading, you should click on the Title
2. Click on the [Add heading] button if you want to create a heading of the same level.
3. If you want to create a new subheading, previously, you have to Click on the Heading of the Table of Contents that you are interested in creating a new subheading.
4. Click on the [Add heading] button for creating a new subheading.
5. Write the name of the heading (optional).
6. Press the [Enter] key to finish.

How to change the name of a heading

As we mentioned above, when you create a new heading, you do not have to give it a name: you can let EasyProf® suggest a default name and change it later through the Properties Window or by carrying out the following steps:

1. Click on the heading whose name you want to change to select it and once it has been selected press [F2]
2. Choose the name. As in modern text editors, three consecutive mouse clicks will select the name even if it is made up of several words (two clicks will only select one).
3. Overwrite the new name on the selected one.
4. Press the [Enter] key.

How to move a heading

Once a heading has been created, you can change its hierarchy in the Table of Contents by using the four arrow buttons in the Table of Contents Bar.

The [Up] and [Down] buttons are used to move a heading through the Table of Contents without changing its hierarchy.

The [Move left] and [Move right] buttons are used to change the heading's hierarchy.

The procedure is as follows:

1. Click on the heading you want to move to select it.
2. Click on the [Move left], [Move right], [Up] or [Down] buttons depending on how you want to move the heading.

If the [Move left] and [Move right] buttons are not active, check whether you have selected a heading. They will also be inactive for several obvious reasons, such as the fact that if there is only one heading then the [Up] button will not be necessary.

When a heading is moved it will drag with it all the subheadings and pages under it.

Pages cannot change their hierarchical level: they are always at the bottom and can only be moved to a different heading.

On the other hand, it is worth mentioning you can move a heading by dragging it with the mouse to a specific place in the created TOC structure.

How to delete a heading

Do the following to delete a heading:

1. Click on the heading that you want to delete to select it.
2. Click on the [Delete] button.

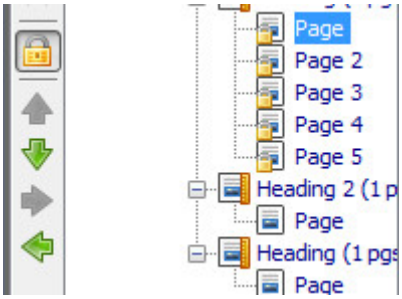
Note: Before deleting any heading we must be very careful because deleting elements in the table of contents is an action that cannot be undone.

How to block a Heading

To block a Heading, we must do the following:

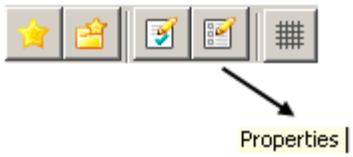
1. Select Heading that we want to block.
2. Click on button Block.

We can block a Heading, a page or a Title. When we block a Heading, all its pages will be blocked as well. A blocked page cannot be modified and displays a small lock on top of its icon in the Table of Contents.

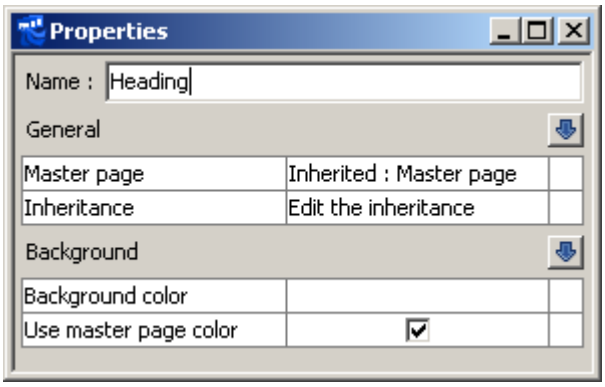


The headings properties window:

Headings and subheadings have got properties that may be edited through their corresponding Properties Window. In order to edit them you just have to select the desired heading or subheading and its properties will automatically appear in the Properties Area, under the Summary Area and the Content Elements. You can also display the properties in a floating window by selecting the button [Properties] in the toolbar



In the Properties window we can distinguish three zones with their corresponding options:



Name: Permits editing the heading name. It is the same name that appears in the Table of Content tree.

General: In this zone we can define the following options:

Master Page Every heading has a Master Page assigned from which the new pages created within will inheritate by default, althrough we can afterwards change them individually.

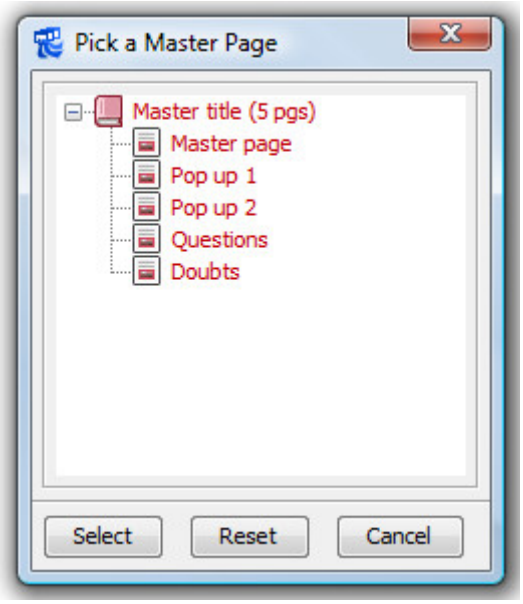
In order to modify the Master Page assigned to the heading, you can click over the button located on the right-hand side of the Master Page frame. It gives us the chance of choosing between two options:

Inherit: If we select this option, the page will inherit the Master Page assigne to the father Heading where the page comes from.

Specify: By selecting this option, a new window will open showing the Master Pages tree. After selecting the desired Master Page and clicking on button [Validate], the change will effectively take place.

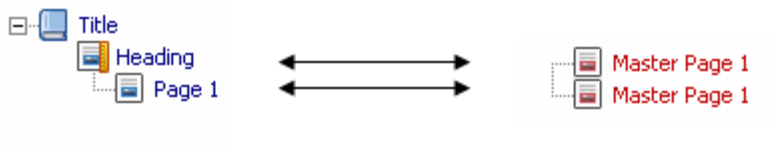
Inheritance: the Inheritance concept means that, in hierarchic structures, each item has the same properties than the ones of immediately superior level. Logically, that conveys the possibility to enchain them, which means, the lower level item of the structure can inherit properties from the higher level one, independently from the number of existing intermediate levels.

A heading or page created inside another one (its father heading) are named “son heading” or simply “page”, which does not prevent later making some changes on the inherited properties.



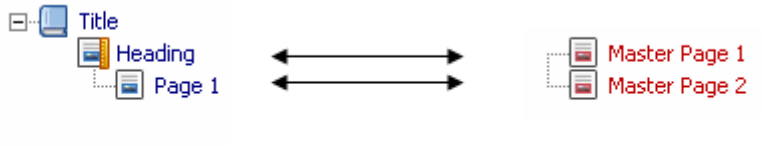
Taking into account that any heading or page belonging to the TOC structure of a Title must obligatorily have an assigned Master Page, we can consider valid the following rules:

Any subheading or page belonging to a heading will inherit by default their Master Page, along with its content and values of the attributes.



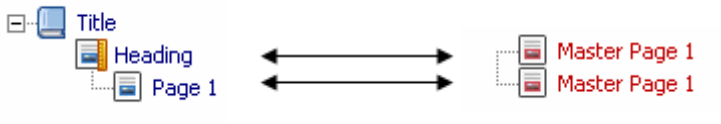
Page 1, created in Heading 1, inherits the same associated Master Page.

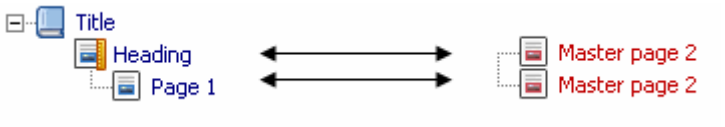
The properties inherited by the pages or subheadings from a determined father heading may be changed later in a specific way, turning them aside of the initially inherited conditions. In addition, the MP modification in a heading or a page does not suppose a MP modification in the headings and pages of a similar or higher level.



Inheritage conditions can be modified by default. In this example MP1 has been replaced by MP2.

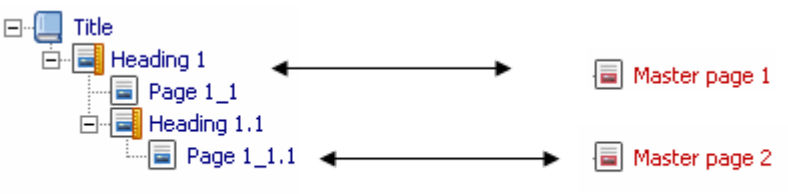
The MP modification in a heading will also suppose the automatic MP modification of the subheadings and pages it contains, as well as its assignement to the new created ones.

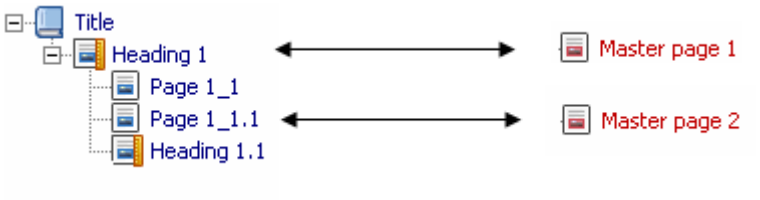




The shift from MP1 to MP2 in Heading 1 will automatically carry out the same shift in Page 1.

One Page or subheading whose location has been changed in the tree, conserves the same assigned MP although the target heading has a different MP assigned, whenever their assignment characteristic is the association. If it was an inheritance, then the assigned MP would change.





MP 2 will keep on being assigned to Page 1.1.1. if the nature of their relation is an association (images), or will stop doing it if it is an inheritance.

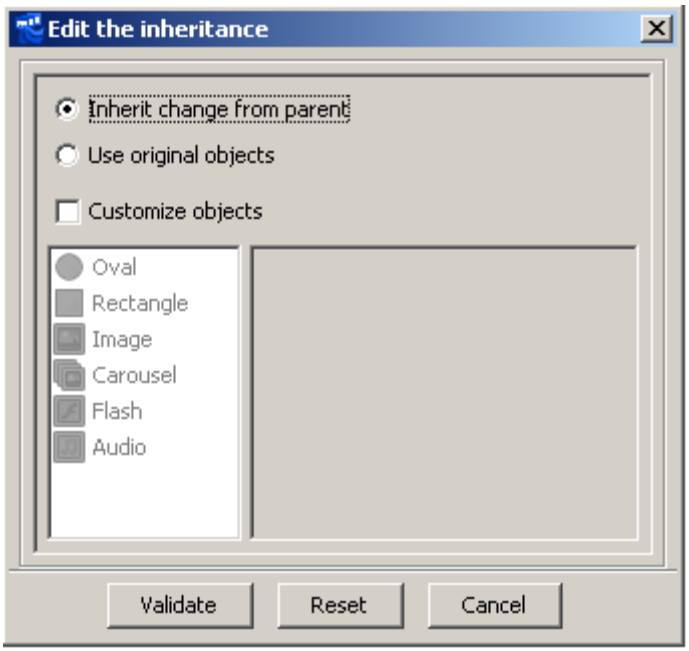
Next the differents options of MP content inheritance are exposed. In this part of the Manual we will put emphasis on the “content” concept:

Inherit father heading customization.

The subheading inherits the MP associated to the father heading, as well as customizations realized on content elements.

Inheritance can be changed from the Properties Windows in the General section. If you want to change the inheritance assigned to the heading or to a specific page, you can click on the button located on the right of the Inherit box. You will see the following window with three options:

1. Inherit change from parent
2. Use original objects
3. Customize objects



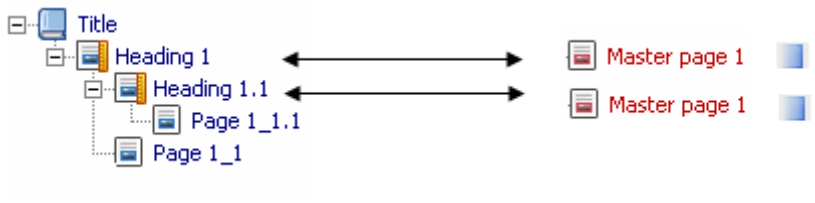
Following, options mentioned above will be described:

Inherit change from parents

The subheading and/or pages inherits the MP associated to the father heading, as well as all the customizations done in the content elements of the MP corresponding to the father heading.

Example 1: in the following Title MP1 was associated to Heading 1. MP 1 contains an image that was

customized as hidden in being inherited from Heading 1 (not being necessarily hidden in the same MP1). : When choosing Inherit other content elements in Heading 1.1., the previous customization will be also valid for it and its corresponding pages

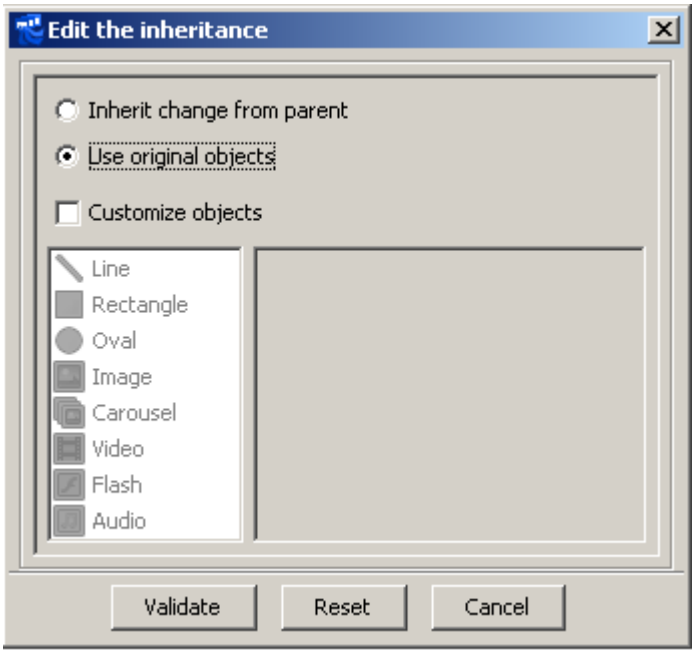


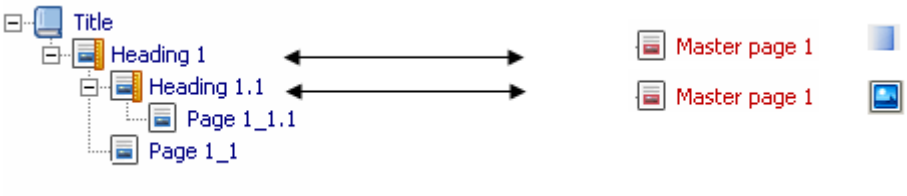
Use original objects

The subheading and/or pages inherit the master page predefined from the beginning.

Example 2: If you take a look at the example number 1, at the beginning it was defined a Master Page that includes a VISIBLE image. If you want to recuperate this MP used from the beginning, including all its elements, in a specific heading and/or page, you will have to select the option and automatically, you will have again the original MP.

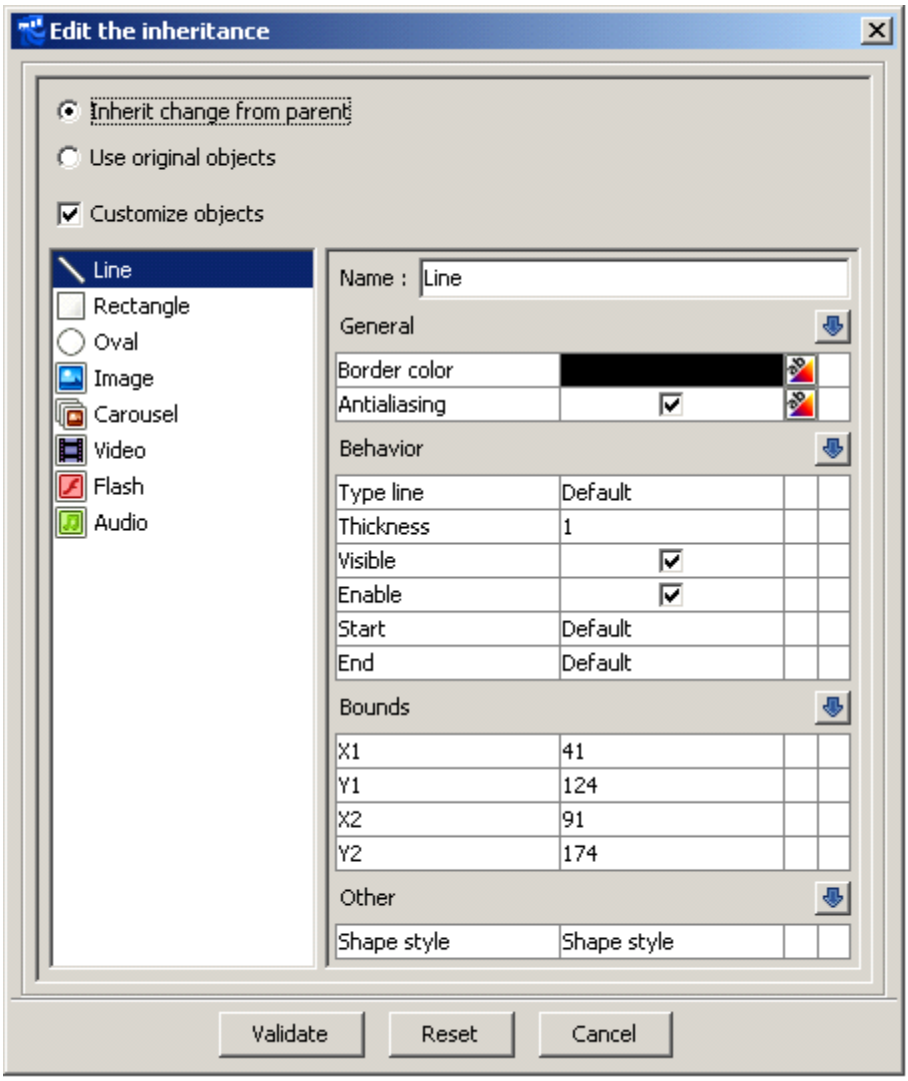
In this example, Master Page , with the image, is assigned again to Subheading 1.1. In order to select again the MP with the image, the option “Use Original Objects” must be selected.





Customize objects

The subheading and/or pages inherit the MP associated to the Father Heading, as well as all its content elements, whose attributes can be customized. If desired, customizations realized in the Father Heading can be inherited: the way to do it is unabling the verification box “Inherit change from parent”.

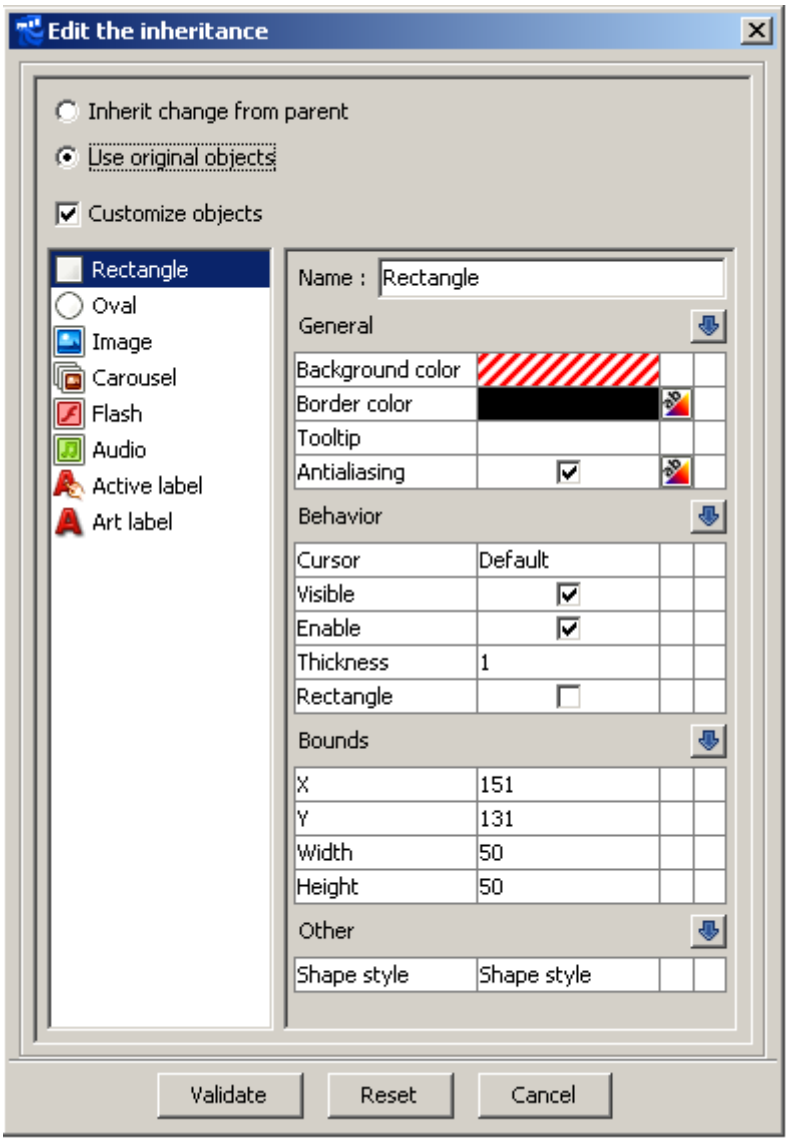


On the other hand, if you want to customize the objects taking into account the original Master Page, you have to select the box “Use Original Objects”.

It is very important paying attention carefully to the selected box (Inherit change from parent or Use Orginal Objects). The selection of the correct box will define the right customization of the heading and/or pages.

Once you select the box, Customize objects, on the left side of the window, all the contents elements introduced are available in there.

If you want to customize any of these elements you will only have to select the content element located on the left (mouse click). Then, you have to stablish the interested customization (change the color of the element, change border, and specify background…).



Background

Background color: it permits changing background color of the pages that are under this heading.

Use Master Page color: uses the background color of the master page.

4.2 How to work with pages

How to add a page

1. Select the page or Heading in the tree in the Table of Contents where you want to add a page.
2. Click on the [New Page] button.

A new page will appear right below the heading, above any other page that it contained.

How to move a page

Once a new page has been created, you can move it up or down by using the [Up] and [Down] buttons

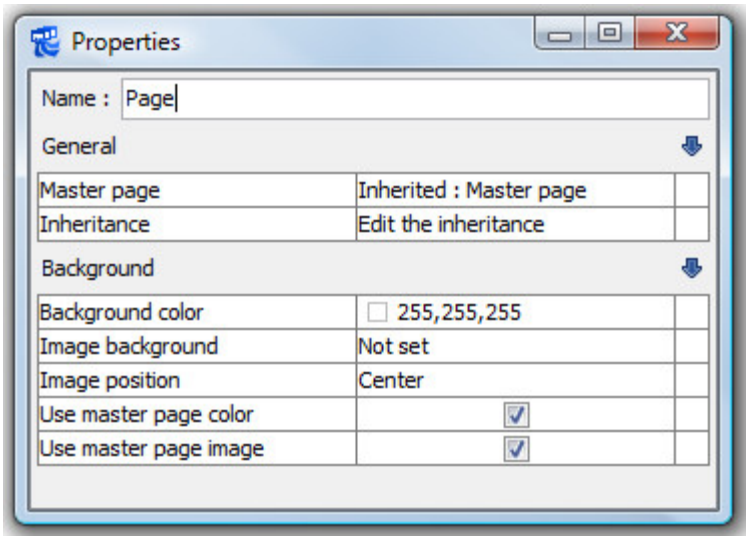
in the set of four arrow buttons located in the Table of Contents Bar.

When a page is moved up or down, it follows the sequential order of the respective headings. In this way, the page will move through all the possible locations when it moves up or down until the user puts it in the desired place. As the pages cannot change their hierarchical level because they are always at the lowest level, the [Move left] and [Move right] buttons do not effect them.

You can also drag the page with the mouse and drop it in the desired location.

The page Properties Window

Pages have properties that can be edited using the Properties Window for the page, located under the Summary Area and the Content Elements. To open it in a floating window, select the desired page and click on the Properties button in the Table of Contents Bar or select the Properties option from the Toolbar.



The following options are available in the Properties Window:

Name

This lets you edit the name of the page. This name is the one that appears in the Table of Contents an the same that will appear in the Path bar in all pages if display option path has been activated.

(See section Master Page configuration in Chapter 3: Title edition)

General

In this section you will see two options:

Master page: On the right of this box, the name of the Inherited Master Page appears.

Inheritance : In the page properties window, we can see an Inheritance tab which is the same we can find in the Heading window. Since this matter has been widely explained in section related to Heading properties window, we refer user to read that section for further information.

4.3. How to work with Master Pages

To recap: Master Pages are mainly useful for grouping together on a common page all the elements that will appear on several pages in the same way and with the same functions. For example, the background image for the pages in a chapter, the browsing buttons, etc. There are two reasons for grouping them together: it avoids having to create them twice and means that any change made in a Master Page only needs to be performed once for all the pages associated with it.

The best way to create a Title is to start by creating the Master Pages required for each of the different kinds of headings, modules or classification units that the Title has. If you then need to alter them or make any changes, it will be easier.

EasyProf© provides a very easy-to-use environment for organizing Master Pages: the Master Pages Area, where you can create as many Master Pages as you like and organize them with the master page headings.

The Master Pages are found in the Master Pages tab of the Table of Contents Area. There you can set up a structure similar to that used in the Table of Contents to order all the Master Pages you need to create. The only difference is that in this case no association is inherited because the Master Pages are independent of each other, while a Title's pages depend on a Master Page by inheritance or association.

When you click on the Master Pages tab, the Table of Contents Bar loses one of its buttons: New Heading. The rest remains unchanged.

The Master Pages heading

As many subheadings as you like can be created in the MP structure. To create a new one from the root heading, click on the [New Subheading] button in the Table of Contents Bar. By using the arrow buttons in the Bar you can move or change its hierarchy. There are no inheritance rules, so any heading can be deleted, unless it contains one or more Master Pages.

Master Pages

The [New Master Page] button is used to create a new master page. You can then place any kind of content in it as if it were a normal page and it will all be immediately visible in the associated pages, but not editable through the pages. A Master Page's components must be edited in the Master Page itself.

To find out how to insert content in pages, see:

(the Content section and the rest of Chapter 5: Creating content.)

To open a Master Page, you have to double-click on its name.

Relationships between a Page and a Master Page

All pages are associated with one Master Page and one alone. Every time a new page is created, a simple inheritance law is applied to associate it with a Master Page: the Master Page associated with a new page is "inherited" from the heading it comes under.

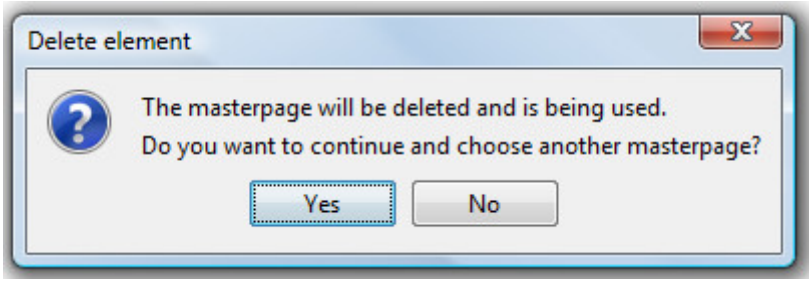
This association can be changed whenever you wish by using the page's Properties Window, but EasyProf® never allows a page not to have an associated Master Page.

How to delete a Master Page

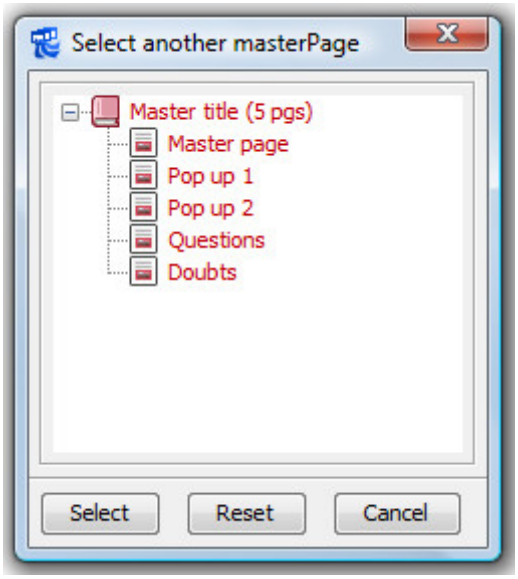
First of all, you have to select the Master Page you are interested in deleting. Then, you have to press the button from the table of contents bar.

It is very important that you are really sure to delete the master page because; you will not be able to restore it.

If the Master Page that we want to delete is linked to any page in the project, a confirmation message will appear.

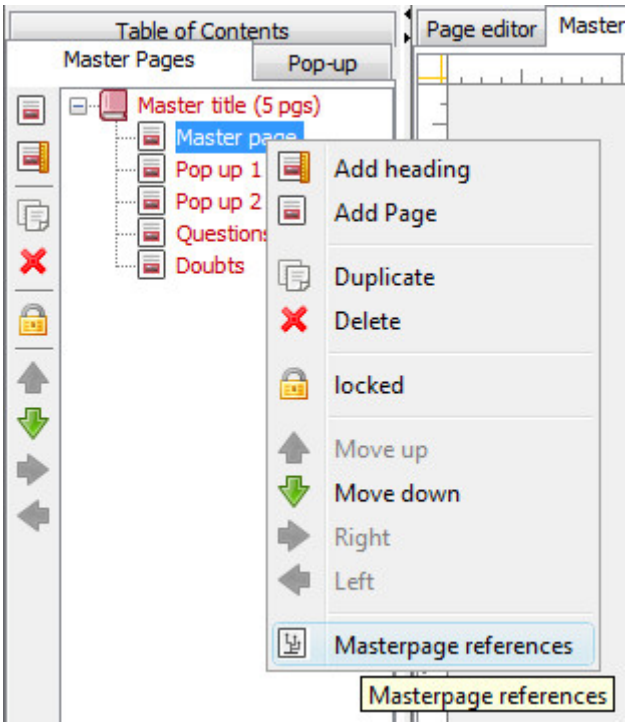

Delete element
The masterpage will be deleted and is being used.
Do you want to continue and choose another masterpage?
Yes
No

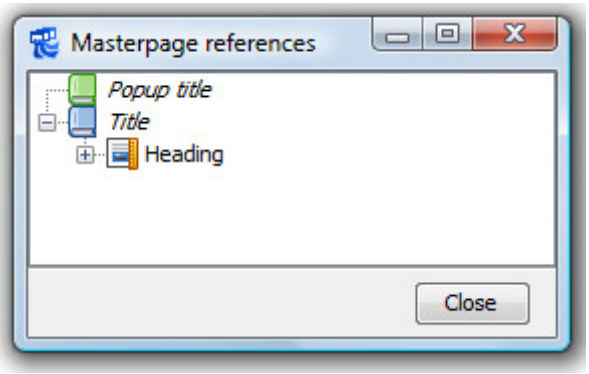
If we confirm that we actually want to delete it, program will display a list of all Master Pages to select the one that is going to occupy the place left by the deleted page.



In case we cancel this process of assigning a new Master Page, there will be no deletion of the chosen Master Page.

All these features may be performed as well from the contextual menu that appears after right clicking on any of the Master pages. Such menu is like the ones that open in the Page section, only that the option Master page links is added allowing us to view all pages linked to this Master page.





5. CREATING CONTENT

5.1 Content

Titles are created to present certain information to the end user. This information, whether it is a course, a presentation, a multimedia Title, etc., is what is called the content. The content is normally made up of different kinds of information, for example teaching or reference material, etc. All such content can be included in pages, Master Pages or Pop up pages.

As we have already mentioned, users can create as many pages as they want and organize them in the most convenient way for them. The Table of Contents will normally have different headings to group together the pages containing the teaching units, the glossary, reference material, etc. They can then be connected to each other using all the necessary navigation actions.

EasyProf® allows you to include the common kinds of media in pages: text, images, sound, animation, etc. Each of these different media and others such as, buttons, tables, etc. are located in the pages and they are called Content elements.

5.2 Content elements

A content element is the object that stores the content and defines its nature. There is a different one for each kind of content: text, image, button etc. To insert certain information in a page, you first have to have the relevant content element available in order to store such information. As an illustrative example, one could compare it with slide projectors that contain a carousel on which the slides must be placed in order (and the right way round). In EasyProf® there is also a Carousel content element, with a similar philosophy to a projector: it is a support that stores a certain kind of information (the slides are the information in a projector); in the Carousel content element in EasyProf® it is graphic files).

EasyProf® includes a group of content element for users that are located to the right of the Pages Desktop Area in the Content Element Palette. There is a list of the beans included in this version and the attributes that can be defined, in Content elements in EasyProf® section, Chapter 6: Content elements and attributes.

Pages and Master pages as content elements

Pages, both normal pages; Master Pages and Pop-ups are also content elements which in turn support the other specific content elements: images, text, buttons, etc. Therefore, pages also have attributes that allow you set their background color, size, etc.

5.3 Procedure for creating a Content Element

It is always possible to include content in any page. However, it is advisable to create first a Table of Contents structure, the basic Master Pages and the pages required in the Title. Whatever procedure you follow, you must ensure that the open and active page window is the page you want to work on.

There are different procedures to include content in the Page section, Master page section or Pop-up section by clicking with the mouse.

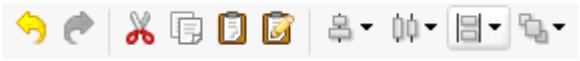
Average insertion: Selected element must be clicked on the Content element bar, and after that it will be

included in any Page area with a simple click of the mouse.

Using copy and paste options: We can see more details of that method in section 5.4 Basic functions for page edition when they specifically deal with copying and pasting.

After activating a bean, when you move over the page the cursor will be cross-shaped, and if you click on the Pages Desktop Area, the content element symbol will appear, bordered with eight small squares that show the limits of its size. As we mentioned above, this icon is not the content but the support. To define what content you specifically want to include and to set its characteristics, you have to use the Properties Area. Chapter 6: : Content elements and attributes describes how to use them.

5.4 Basic functions for page edition



Undo

This allows undo latest functions. You can activate it with the menu option Edit >Undo, or clicking on the corresponding icon from the Tool bar.

Redo

This allows redo latest functions. You can activate it with the menu option Edit > Redo, or clicking to the corresponding icon form the Tool bar

It is worth mentioning that both options Undo and Redo do not have effect to all of the text components attributes. In these sense, you will be able to undo and redo functions that directly affects to:

- Copy and paste content elements.
- Content element edition.
- Content elements remove.
- Content elements position: align and arrangement.
- Content element distribution.
- Content element remeasurement.

Cut and Paste

When a content element is cut; this one is removed from the page and it is saved in the clipboard. Then, you can paste this element to another page. The steps needed for cutting and pasting elements are the following:

1. Select the content element/s that you want to cut.
2. Select the option from the menu Edit > Cut, or clicking on the corresponding icon from the Tool bar or click on the context menu (menu that appears when you press the right button of the mouse) or you have also the choice to press the combination key [Ctrl + X].
3. Put the pointer in a specific place from the page where you want to paste the element.
4. Select the option menu Edit > Paste, click on the corresponding icon from the Tool bar, or press the combination key [Ctrl. + V].

The attributes from the pasted content element has the same characteristics from the cut element.

Copy and Paste

When a content element is copied; this one is saved in the clipboard. Then, you can paste this element to another page. It is important mentioning that when you chose the option Cut, the selected element is not removed from the page. The steps needed for copying and pasting elements are the following:

1. Select the content element/s that you want to copy.
2. Select the option from the menu Edit > Copy, or clicking on the corresponding icon from the Tool bar, or pressing the combination key [Ctrl + C].
3. Open the page where you want to paste the element.
4. Select the menu option Edit > Paste, or clicking on the corresponding icon from the Tool Bar, or pressing the combination key [Ctrl + V].
5. Put the pointer in a specific place from the page where you want to paste the element.

The attributes from the pasted content element has the same characteristics from the copied element.

Special Paste

The special paste is very interesting if you want to copy and paste pages or headings. The special paste gives you the opportunity to select between the following options:

- Duplicate test
- Duplicate styles

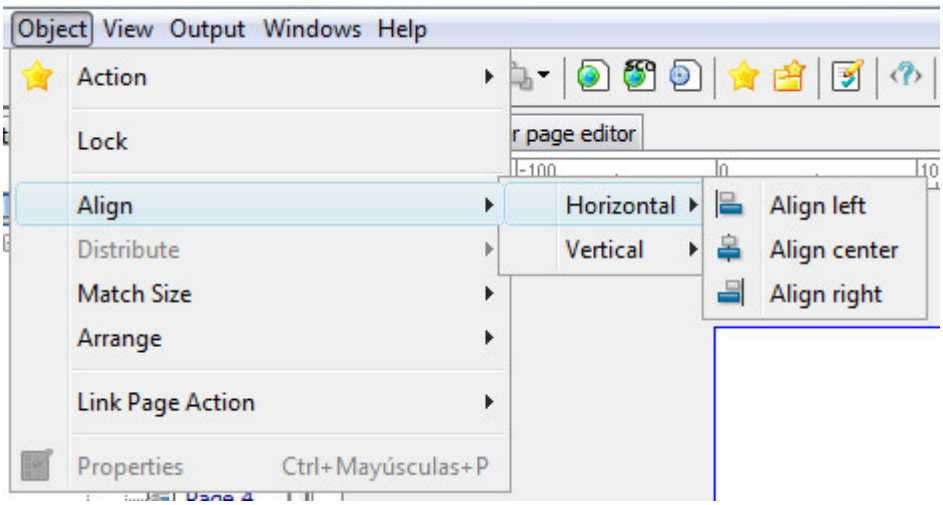
The option Duplicate tests is very useful when you have tests. Duplicate a test means that you have an independent test from the original one. In this sense, the copied test will be different from the original one (from the original page).

If you do not duplicate the test, you will have dependent tests. Therefore, if you make any change in one specific test from the copied test, all the changes will be also done in the original one. And vice versa, if you make any change in the original test, all changes will be also done in the copied one.

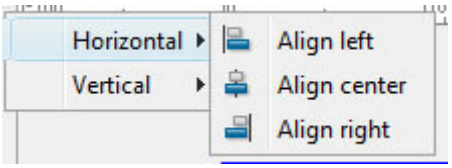
Align content elements

To align content elements in a page, there are three steps that have to be followed:

1. Select elements that we want to align.
2. Select menu option Object > Align.
3. Select desired type of alignment, either horizontal or vertical.
    - Horizontal (right, center or left)
    - Vertical (Top, middle or bottom)



Instead of using the menu, this same options are also available activating the Align function by clicking on its corresponding icon in the Toolbar.

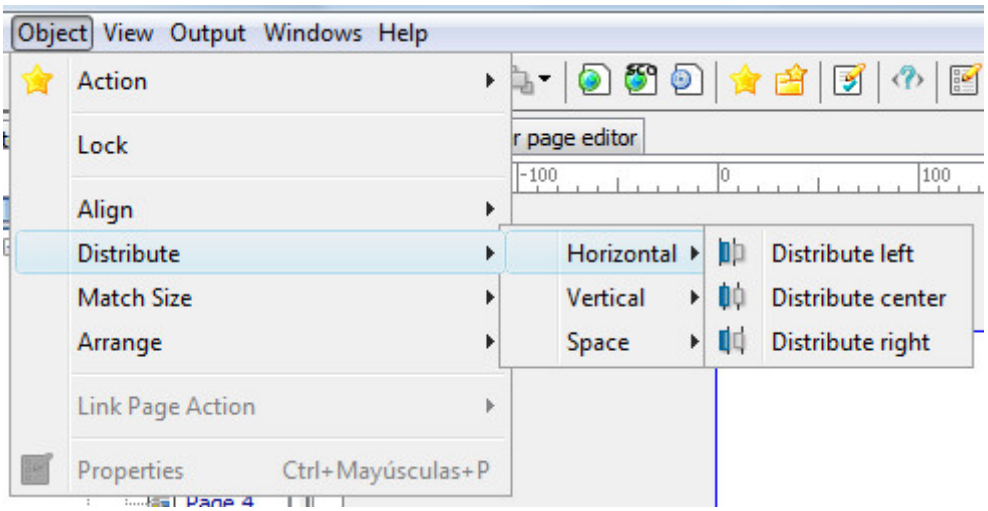


It is important to note that these functions are ONLY activated if the content element that we want to align is selected.

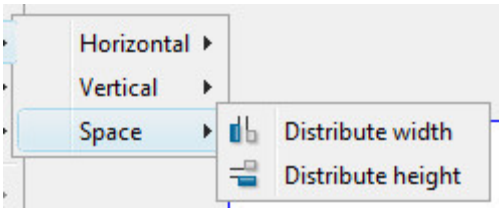
Content element distribution

To distribute in an evenly way content elements in a page, we must perform the following operations:

1. Select items that you want to distribute.
2. Select menu option Object > Distribute.
3. Choose desired type of distribution, horizontal, vertival or in space:
    - Horizontal (right, center or left)
    - Vertical (Top, middle or bottom)
    - Space (Width or Height)



Instead of using the menu, this same options are also available activating the Distribute function by clicking on its corresponding icon in the Toolbar.

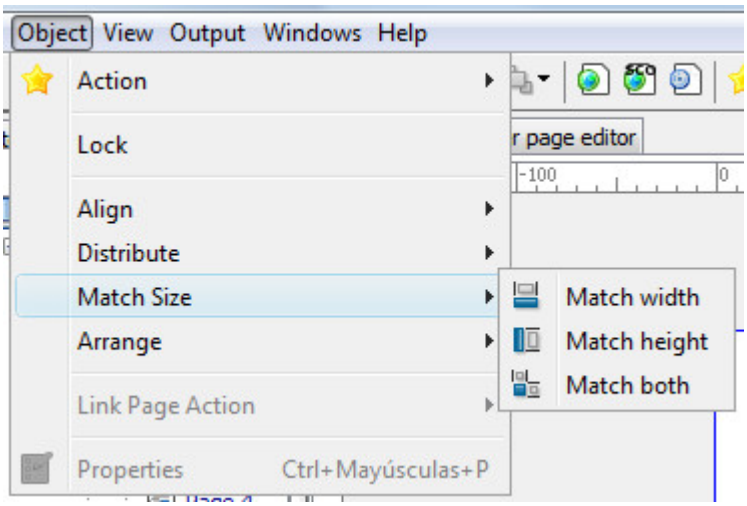


It is important to note that this functions are ONLY activated if the content element that we want to change is selected.

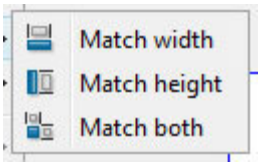
Matching size of content elements

If we want two or more content elements to have the same size in a page, we must perform the following operations:

1. Select items that you want to have a matching size.
2. Select menu option Object > Match size.
3. Choose dimension you want to match:
    - Width
    - Heigth
    - Both



Instead of using the menu, this same options are also available activating the Match size function by clicking on its corresponding icon in the Toolbar.



It is important to note that this functions are ONLY activated if the content element that we want to change is selected.

Sorting of content items

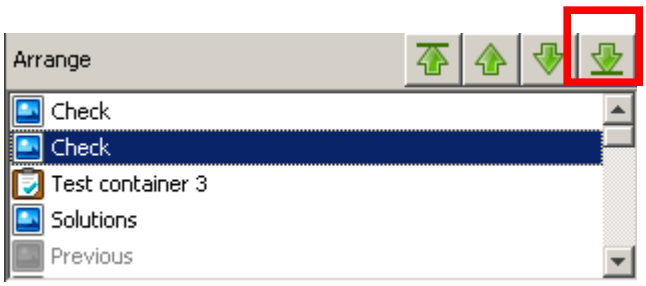
Send to back

The option “send to back” allows you to select a content element which is placed above another. Therefore, if you select it and then, you activate this function; the order of superposition changes. The selected one will be placed under the other element and viceversa.

You can activate this function by using the following options:

Using the menu Object > Arrange > Send to back.

You also have the choice to click on the corresponding icon placed in the table of content area (specifically in the content element area).



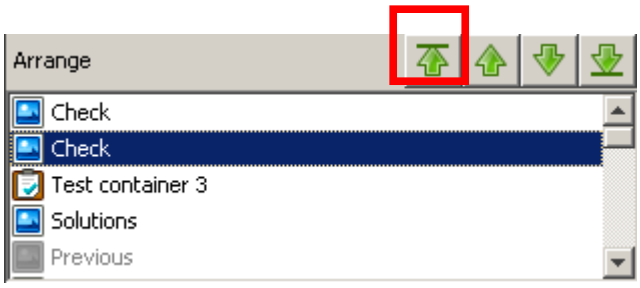
You also can click on the context menu of the specific element content and select Arrange > Send to back

Bring to front

The option “bring to front” allows you to select a content element which is placed under another. Therefore, if you select it and then, you activate this function; the order of superposition changes. The selected one will be placed above the other element and vice versa.

You can activate this function by using the following options:

- Using the menu Object > Arrange > Bring to front.
- You also have the choice to click on the corresponding icon placed in the table of content area (specifically in the content element area).



- You also can click on the context menu of the specific element content and select Arrange > Bring to front

Bring forward

The option “bring forward” allows you to select a content element which is placed under another. This is very useful when you have different content elements and you want to change the position between them. Therefore, if you select it and then, you activate this function; the order of superposition changes. The selected one will be placed above the other element.

You can activate this function by using the following options:

- Using the menu Object > Arrange > Bring to forward.
- You also have the choice to click on the corresponding icon placed in the table of content area (specifically in the content element area).

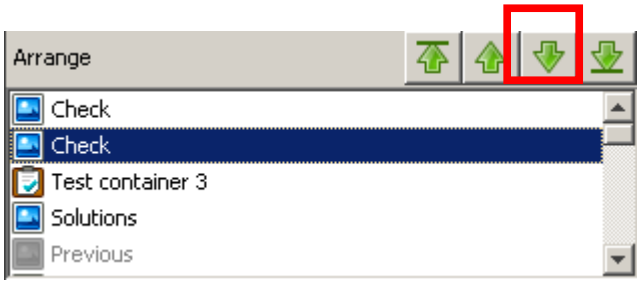
- You also can click on the context menu of the specific element content and select Arrange > Bring to forward

Send backward

The option “send backward” allows you to select a content element which is placed above another. This is very useful when you have different content elements and you want to change the position between them. Therefore, if you select it and then, you activate this function; the order of superposition changes. The selected one will be placed under the other element.

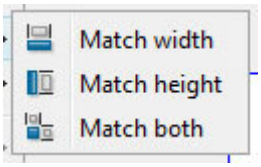
You can activate this function by using the following options:

- Using the menu Object > Arrange > Send backward.
- You also have the choice to click on the corresponding icon placed in the table of content area (specifically in the content element area).

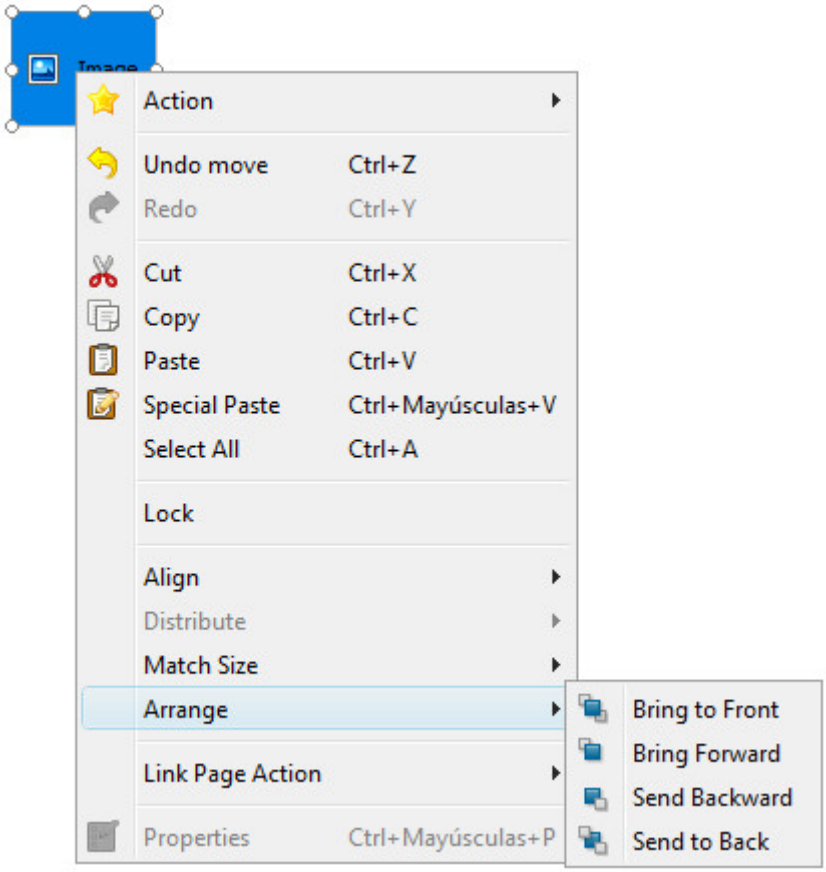


Arrange > Send backward.

All these options are accessible as well through button Arrange in the Toolbar.



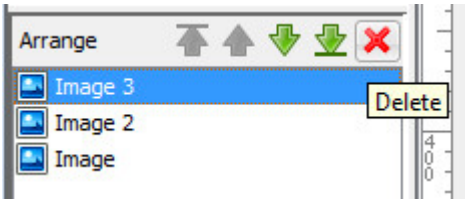
As well as using the contextual menu.



Delete

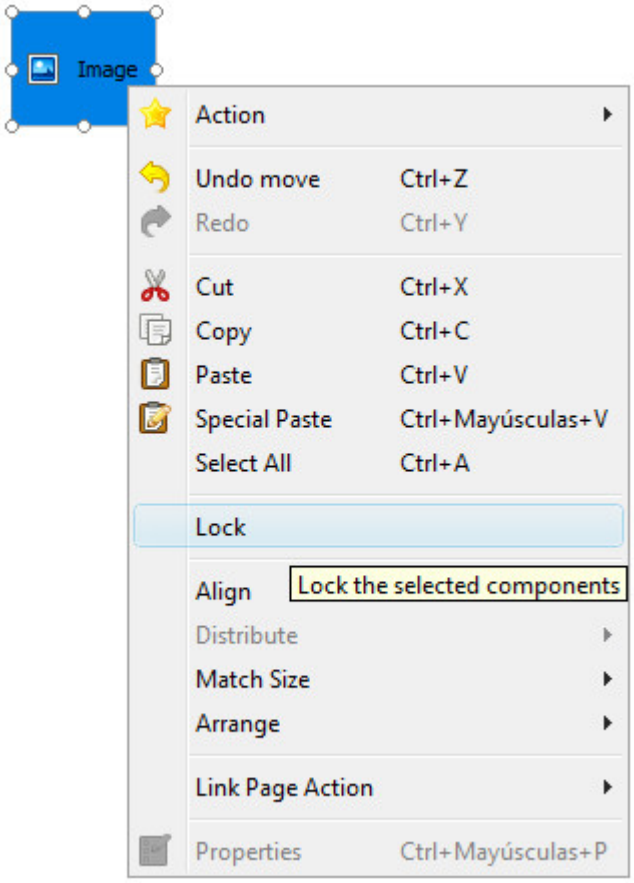
You can delete any selected content element. To do so, you have to select the deleted element, choosing the menu Edit > Delete or clic on the context menu and select Delete. For those elements that do not have text, you also can use the [Supr] key.

Moreover there is the option to click on Delete in the contextual menu or select the element in the content area and clicking on the red cross.



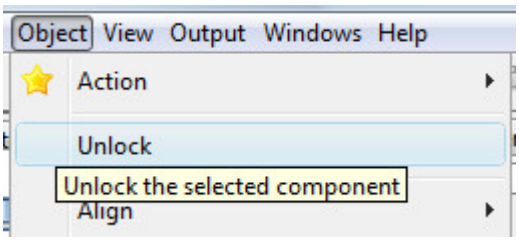
Blocking

While editing a content, it may be interesting to avoid moving involuntarily an element. To do so we will use Block option from the Object menu or from the contextual menu.



A blocked element cannot be moved or deleted neither can be resized. That is why size modifiers that usually appear in blue, are diplayed now in grey (or do not appear) in a blocked element.

To edit the item again, we only have to click on option unlock in the object menu or in the contextual menu.



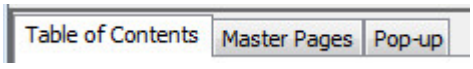
Even a blocked element may be edited from the properties window.

5.5 Help with identifying the Pages Desktop Area

When you are including content in a Title, it is normal to have several pages and even Master Pages or Pop-ups opened and to quickly go from one to another. This can create confusion about which page is open and active. The easiest way to check is to look in the Table of Contents Area.

(Choosing and opening a page section in Chapter 4: Working with the Table of Contents and Master Pages)

Therefore, you have to pay attention to the specific tab are you selecting (Table of Contents, Master Pages and Pop-Ups). In this sense, if you are selecting the Table of Contents tab, all the selected beans, will be appeared in all those pages that you decided to insert a specific bean.



There may be confusion between a page, a Master Page and a Pop-up page and including new content in one of them by accident when it should have been put in the other. This is not obvious as the content elements in Master Pages can be seen in the pages, although they cannot be edited there.

In order to make it easier to identify the elements, EasyProf® especially includes two useful features. The first is that the frame that appears on enabled content elements, made up of eight small circles around them, is blue in the case of page elements; red in the Master Pages and green in the Pop-up pages.

5.6 The Attribute Editors

First of all, before explaining the attribute's editor, it is very important taking into account that the Content Element's Attributes (or properties) are placed on the bottom left side of the table of contents area. In this space you can easily manage the properties of any part of the content, from master pages to page element.

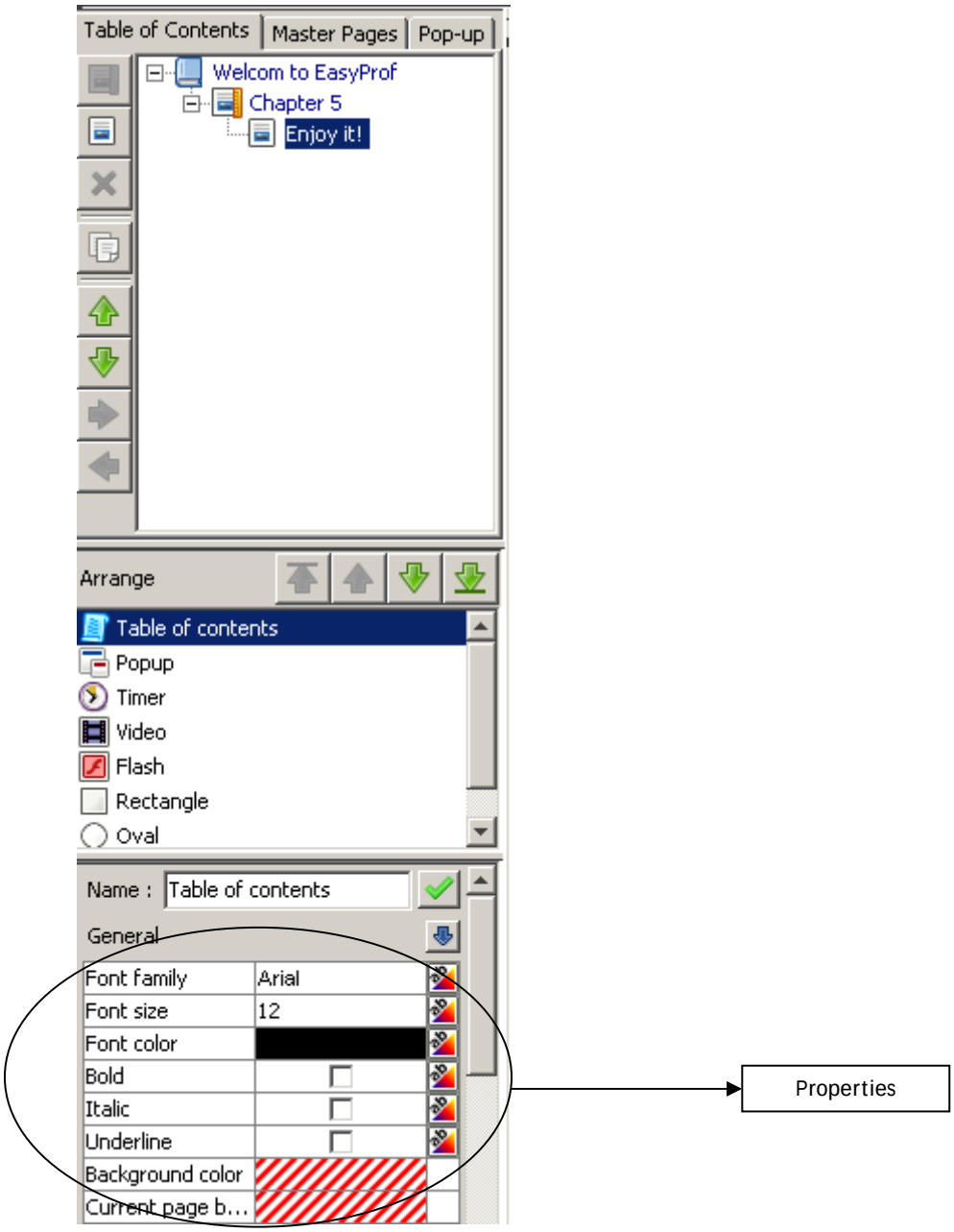


Table of Contents
Master Pages
Pop-up
Welcom to EasyProf
Chapter 5
Enjoy it!
Arrange
Table of contents
Popup
Timer
Video
Flash
Rectangle
Oval
Name :
Table of contents
General
Font family
Arial
Font size
12
Font color
Bold
Italic
Underline
Background color
Current page b...
Properties

However, it is worth mentioning that, you also have the chance to use the Properties window located on the tool bar:

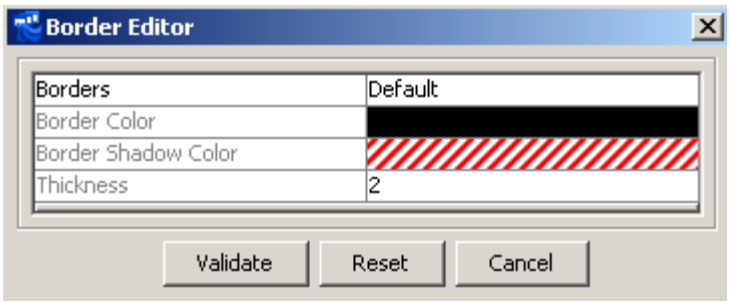
Therefore, you can change any properties of any component thanks to the Attributes window or the Content Element's Attributes. Some of these properties are so generally used that we have found a way to make it easier to set and modify them by using windows with the generic name of Editors. These let you set the same attributes in the same way, whatever the content element.

The Editors are as follows:

- Border editor.
- Scrollbar editor.
- Color editor.
- Cursor editor.
- Gradient editor.
- Margin editor.
- Text editor.
- Link editor
- Font editor.

Border editor

Several content elements, such as the Test, can have borders and in all cases it is possible to choose between different kinds, sizes and colors. If the border includes a shadow effect (bevel and etched), you can choose the color. In the same way, you can select the size of a line border:



The different kinds of borders available in the editor are as follows:

- Default
- Empty
- Dotted
- Dashed
- Line
- Double
- Groove
- Ridge
- Outset

The other editor options are:

Border color: This lets you select the border color for the kinds that let you.

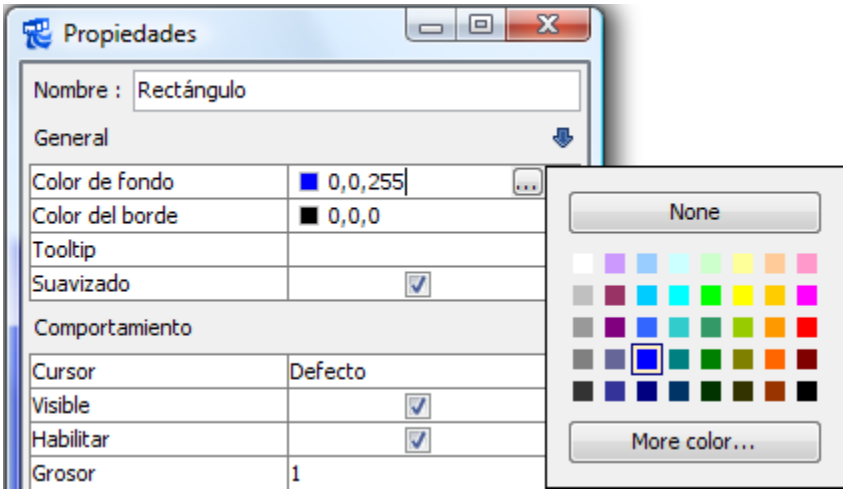
Border Shadow Color: This lets you choose the color of the border shadow for the kinds that let you.

Thickness: If you have chosen a line border, one of the properties you can vary is its width in pixels.

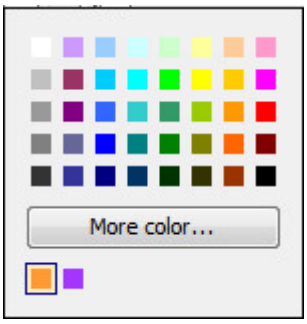
Color editor

The same color editor is used for all the content elements. In the Properties area, we find a small box displaying the color used together with three numbers (from 0 to 255) to show the basic RGB color proportions. The first number corresponds to the red proportion, second to the green and the third to the blue. 255 stands for the maximum possible amount of each color. Namely, 255,0,0 would correspond to pure red and 0,0,255 to pure blue. 0,0,0 is equivalent to white and 255,255,255 to black. This color system is currently being used for the vast majority of programs working with color.

Color may be modified by changing these numbers, which is the fastest way when we work with previously known colors. When numbers of a color are unknown or we prefer to see a list of colors to choose from it, all we have to do is click on the button More color... and a fast color selection window with a selection of the most commonly used colors will open.

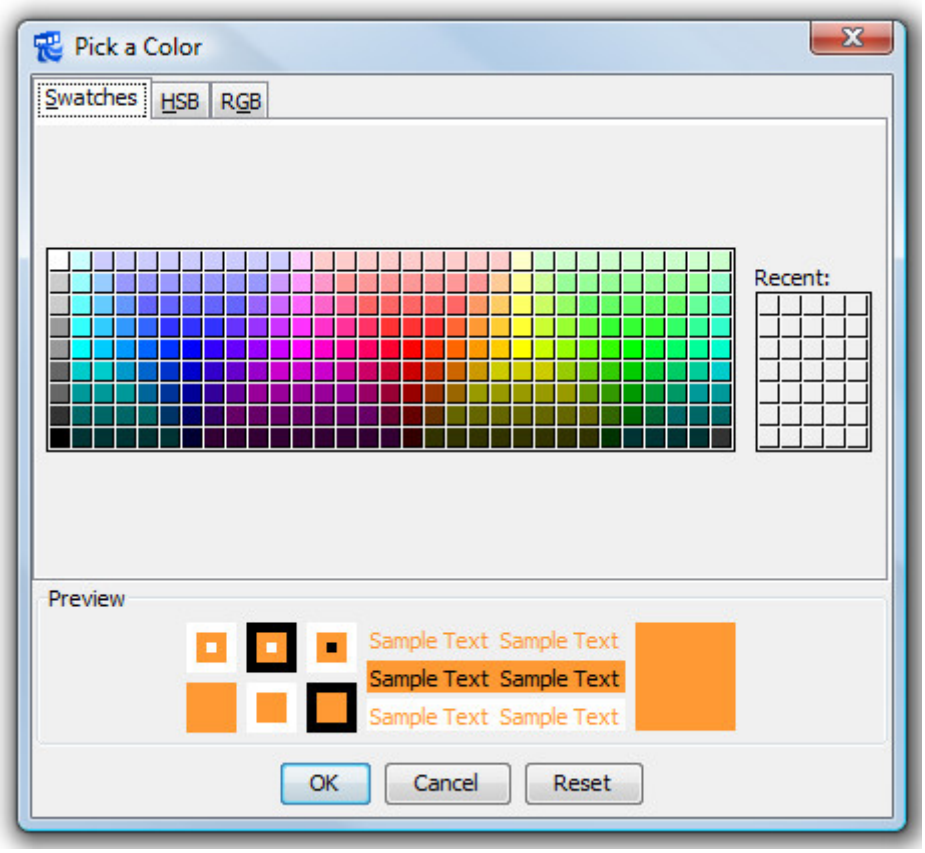


Each time we use a color, the palette automatically keeps a record of it to make its use later on much easier.



In case we want to use a color not available on the list, we can access the avanced color editor by clicking on the button More color. This advanced editor is made up of a window split into two parts. The upper part of the window has three tabs: Swatches, HSB and RGB.

The bottom part contains one box: Preview, and is the same for the three tabs.



Preview: Shows an example of the selected color.

Editor tabs are the following:

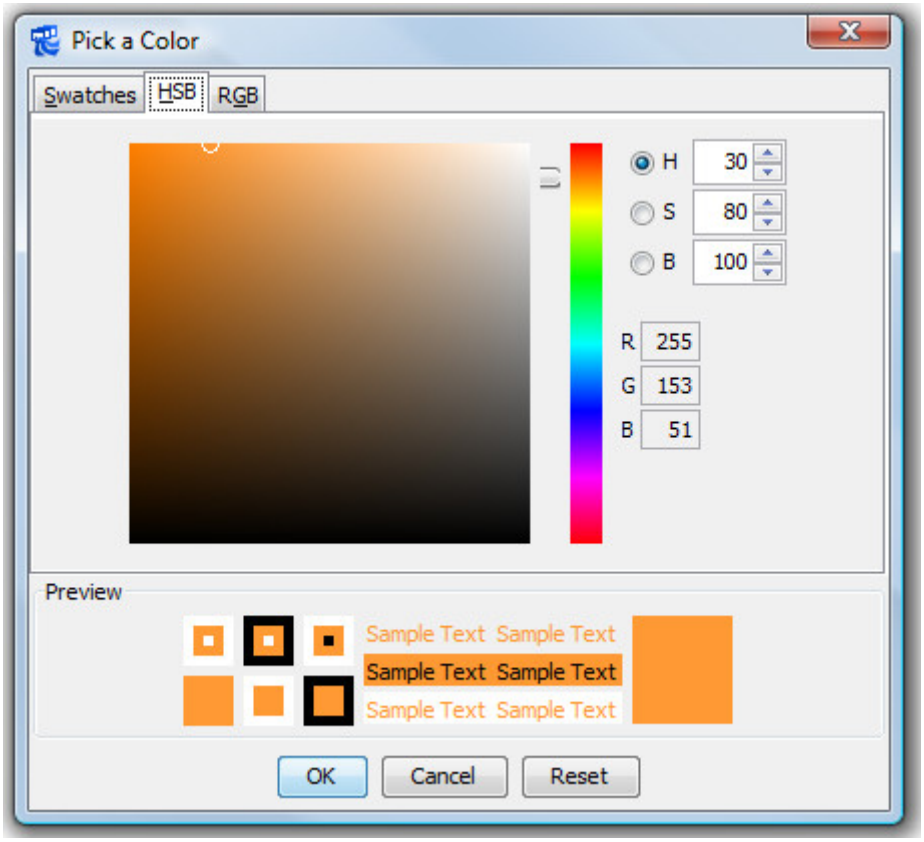
- Samples
- HSB
- RGB

Samples: Diplays an example of the selected color.

Recent: Shows a list of colors recently used in content elements or in page backgrounds. As long as we do not exit EasyProf, this list is available for all titles that we open.

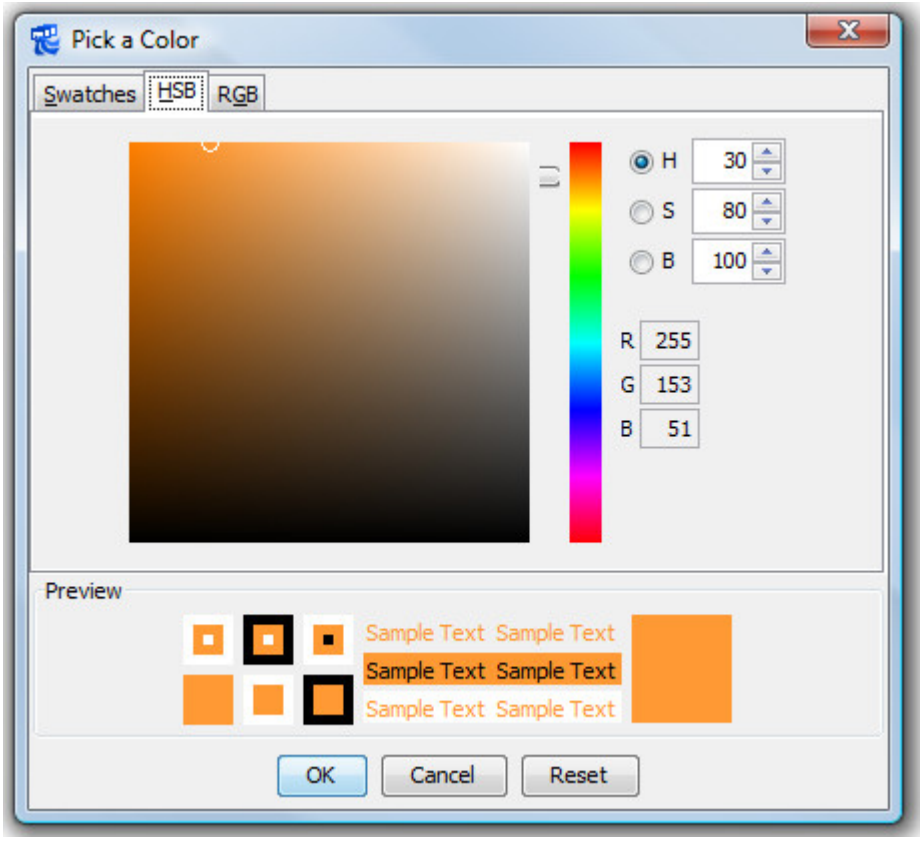
HSB

The HSB color model is based on the following values: Hue, Saturation and Brightness. By clicking on the HSB tab, you access the classic way of presenting this color model, which allows you to choose from among 16.7 million different colors.



RGB

Finally, there is a tab for using the RGB color model, based on mixing Red, Green and Blue. The desired color can be chosen by using three sliders, one for each color, or by entering the relevant value in each of the three fields. The color obtained is seen at the bottom of the window.

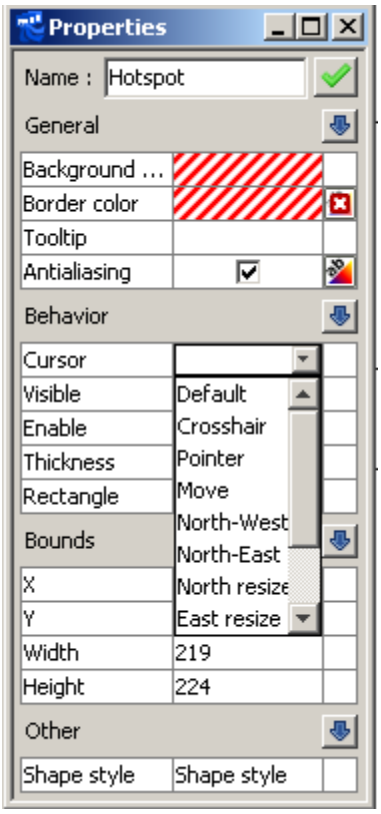


Cursor editor

This lets you choose the kind of cursor that will be shown when you move the mouse pointer over the various interactive content elements, for example a Hot spot.

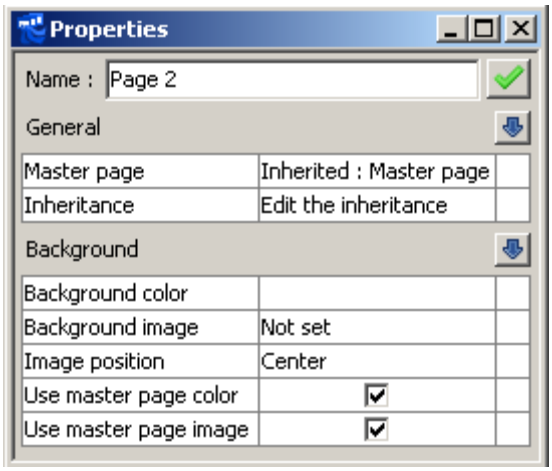
The options available are as follows:

- Default cursor.
- Pointer cursor.
- Move cursor.
- North-West cursor.
- North-East cursor.
- East resize
- Help
- Text
- Wait



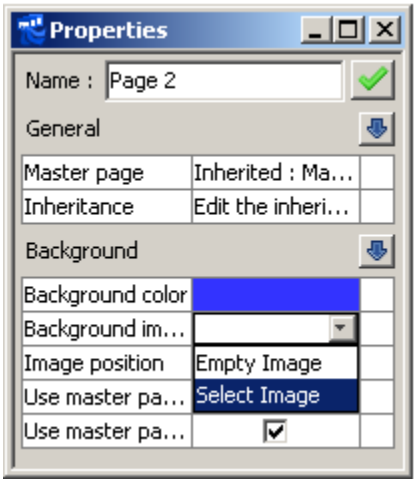
Background editor

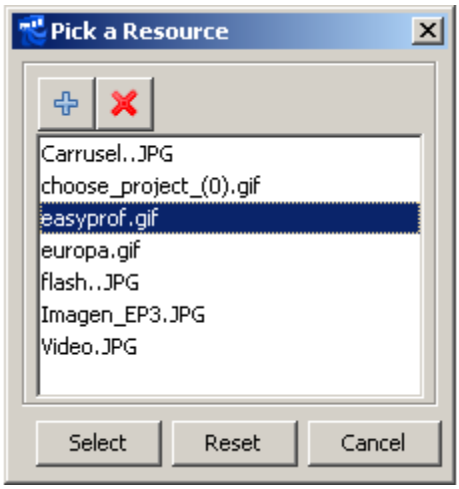
You can edit the background colors of pages, Master Pages and Pop ups Pages that contains this option.



Background color: The page background color is defined here.

Background image: This option allows you to select an image from the Resource Manager.



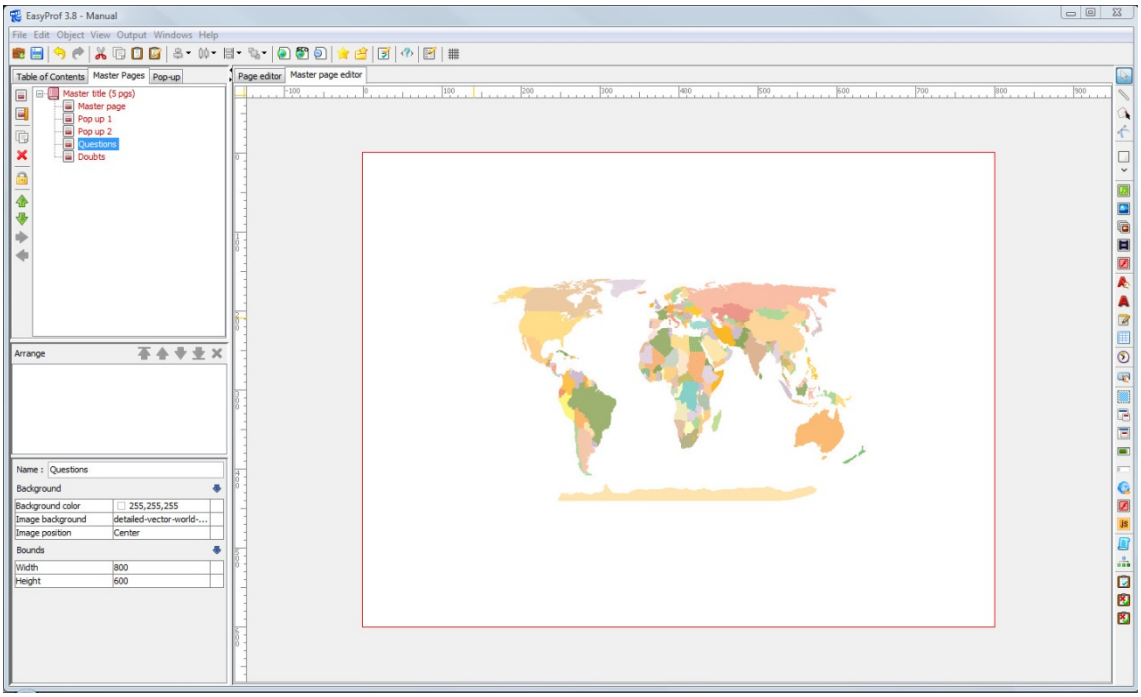


From the resource manager you are able to pick a resource (in this case an image) from your computer thanks to the symbol +. Then, you have the possibility to select which one do you want to introduce for the page background by using “Select”. More information is available about Resource Manager in chapter 2.6 Resource manager.

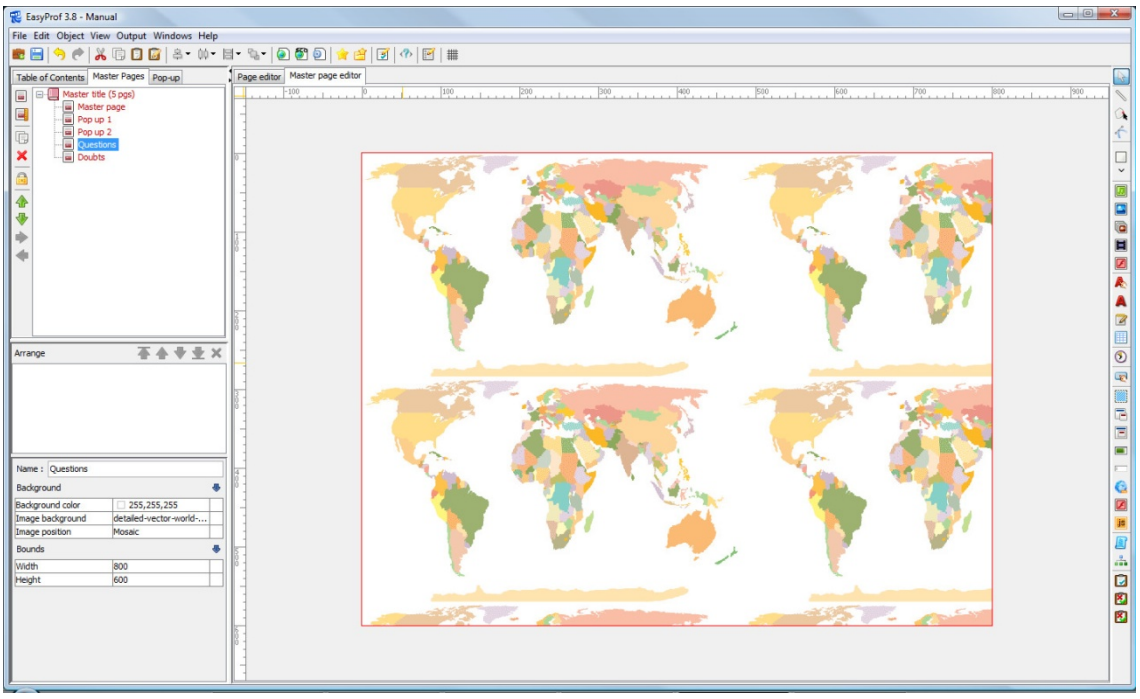
Image position

Thanks to this option, you are able to center the image, expand it or you also have the choice to use the mosaic option.

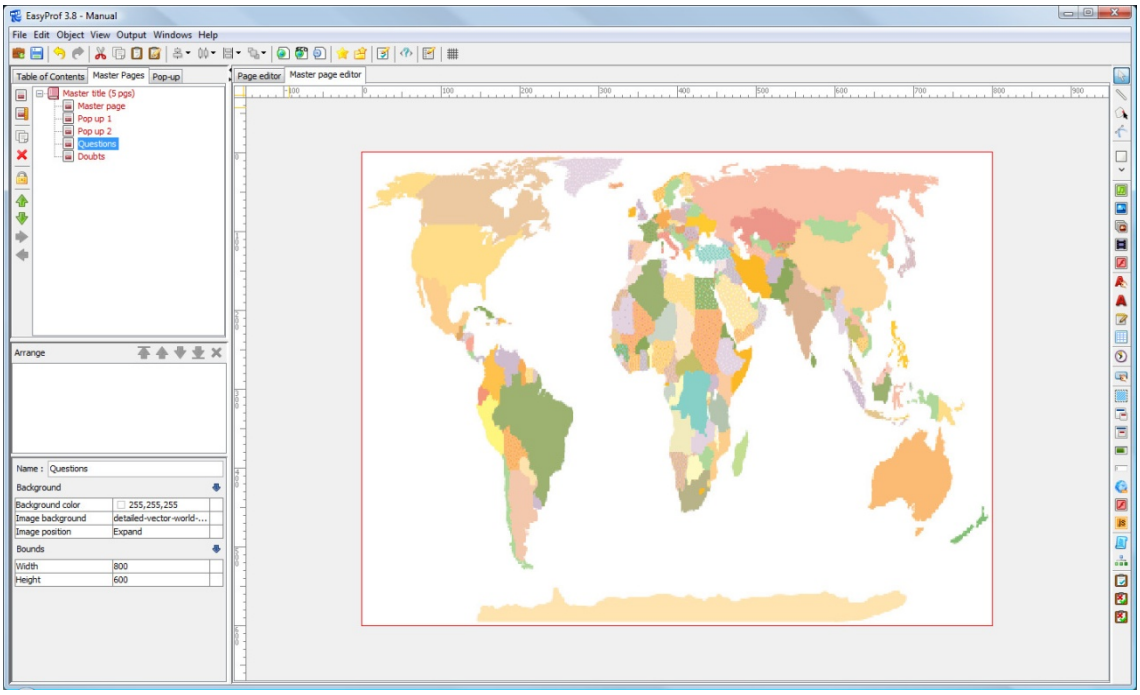
- Center: You can insert the image in the middle of the page defining the background.
- Mosaic: This option allows you to insert the same image around the page (the effect is like a mosaic of images).
- Expand: This option expands the image using the entire page.



Center



Mosaic



Expand

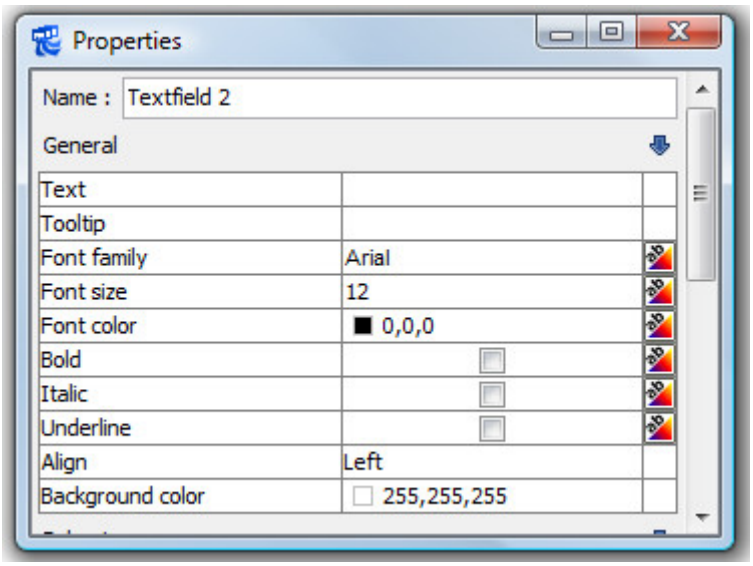
Use master page color: This option allows you to select (if you want) the page color of the master page.

Use master page image: This option allows you to select (if you want) the predefined image of the master page.

Text editor

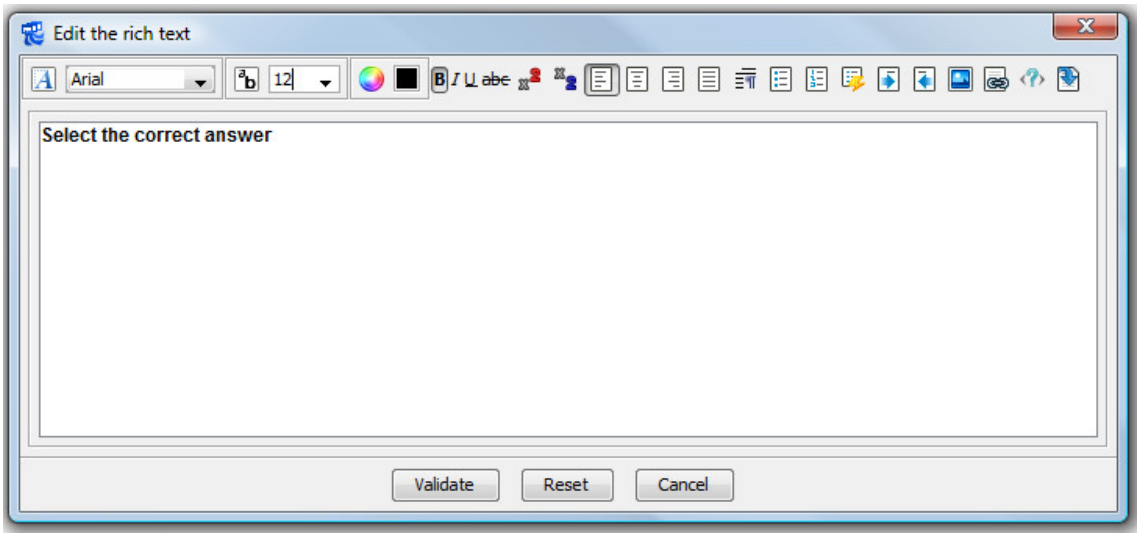
Text can be edited from the table of attributes from the following content elements that contain text (active label, art label, rich text, button and test). Changes to text made with the editor can immediately be seen in the element.

All those changes that we make in the text with the Text editor can be seen immediately in the element.

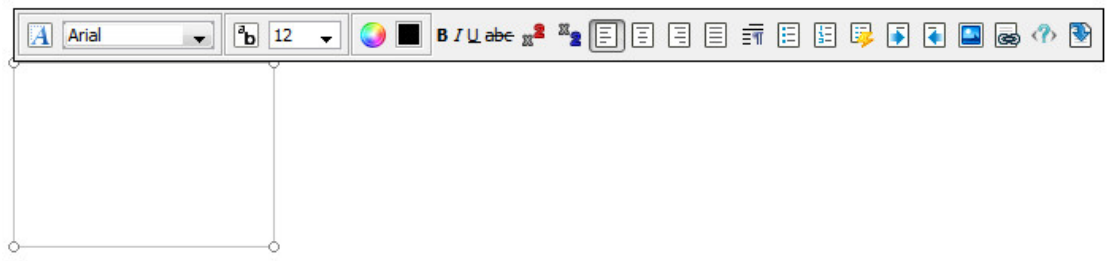


Apart from the properties, common to all texts, we can perform various functions within the text itself. To do so, while editing it, appear a number of buttons with style options such as bold, alignment, etc. Appear as well as the option for inserting links, images, variables... or to export text to RTF.

When text is part of an element, as in the case of a question in a test, text editor and all its functions appear in a separate window.

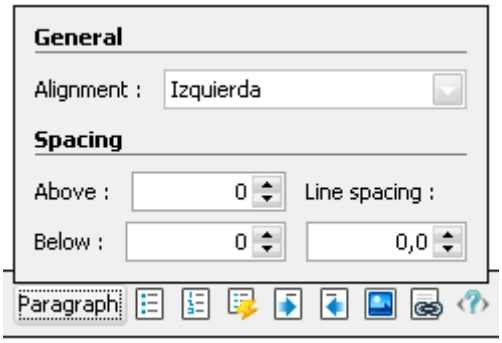


However, when we edit a text content element, such functions appear on the editing area itself.



Using the buttons in the text editor we can change the used font type and its size, as well as its color. We can use bold, italic, underline and strikethrough, as well as indexes and subscripts. Text alignment can also be modified using align left, align right, center, and justified.

By using the paragraph button we unfold a window that allows us to modify paragraph alignment, indentation and spacing.

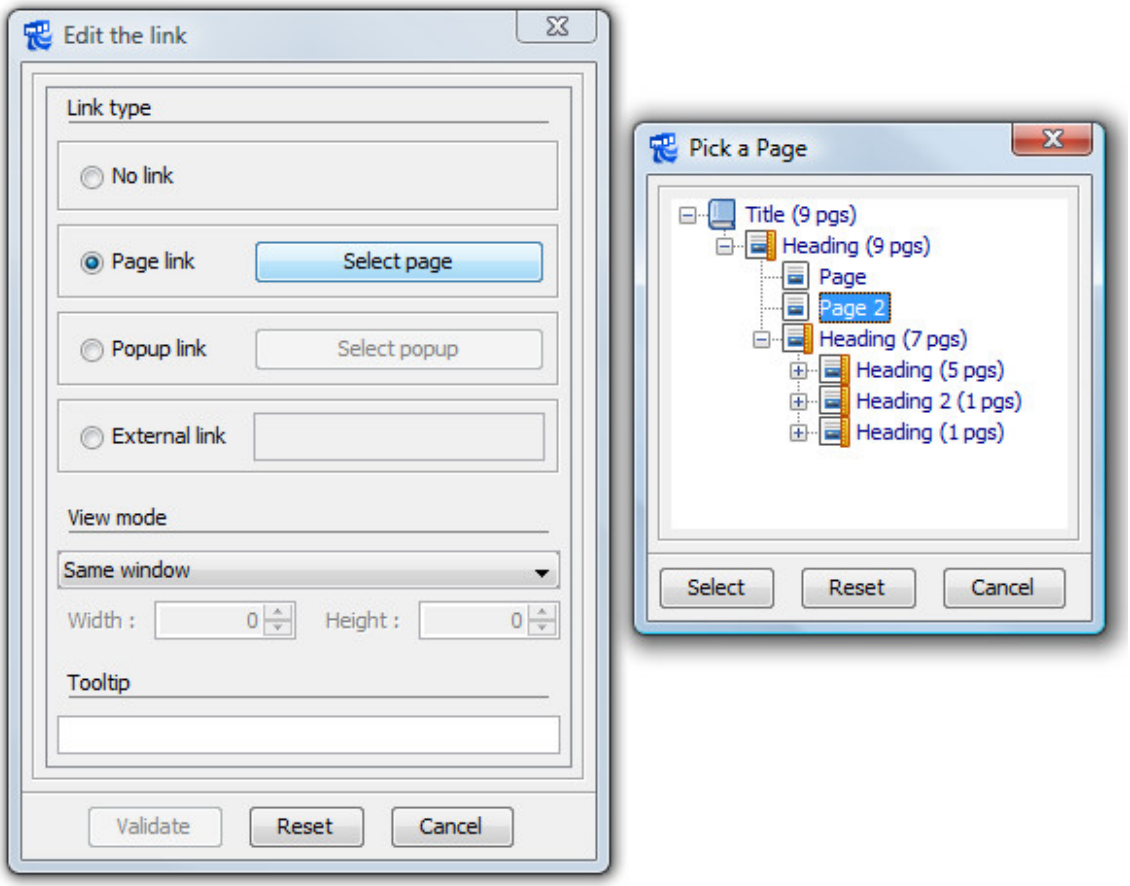


The remaining buttons let us make a list (with bullets), a sorted list (numerically), restart numeration of a list and increase or decrease an indent. Finally, there are buttons to insert images, links and other variables. The last button allows importing a text file in RTF format (Rich text that can be generated from any office application).

By using the Text field we insert new content in our project. Initialy, this content is included in the project when we leave the text editor. That's why if we click on Undo button in the Toolbar, all changes made while editor has been opened will get lost. However, if we click undo/redo before leaving the editor, all changes done in the editor will be undone (for example, erasing last entered text or recovering most recent deleted text). We can save changes in the text any time by the key combination Ctrl + Intro. Similarly, we can leave the editor without saving changes by pressing ESC.

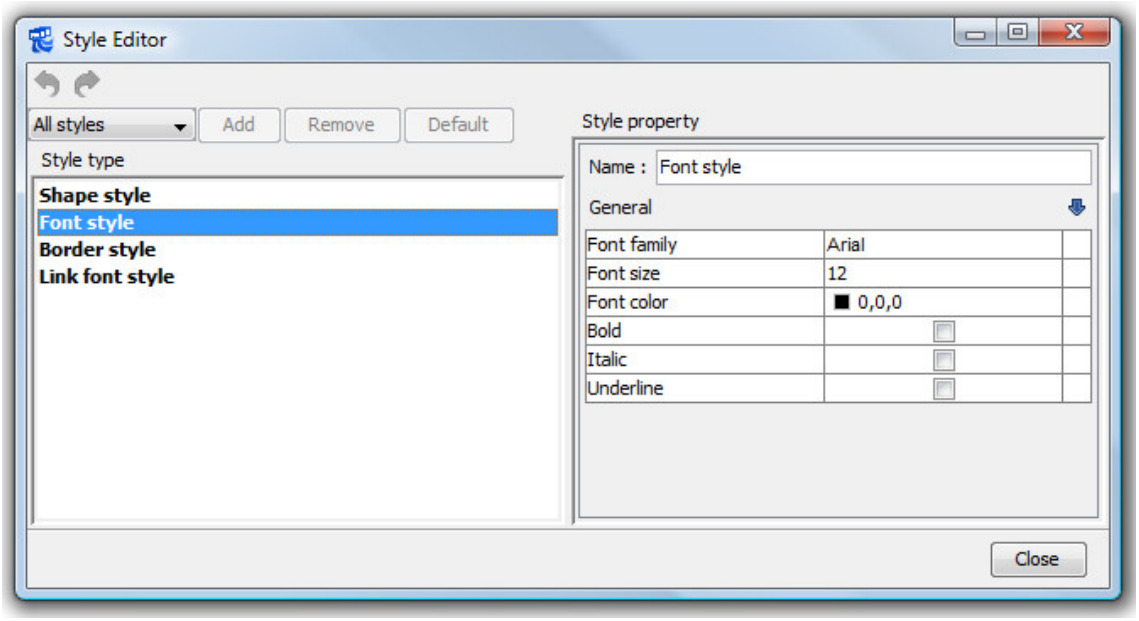
Link editor

The Link editor enables us to insert a link within a text. This link can be directed to a website or to a page in the Tabble of Contents. We can also define if the new page will open in the same window or in a pop-up window, whose measures can be easily customized.

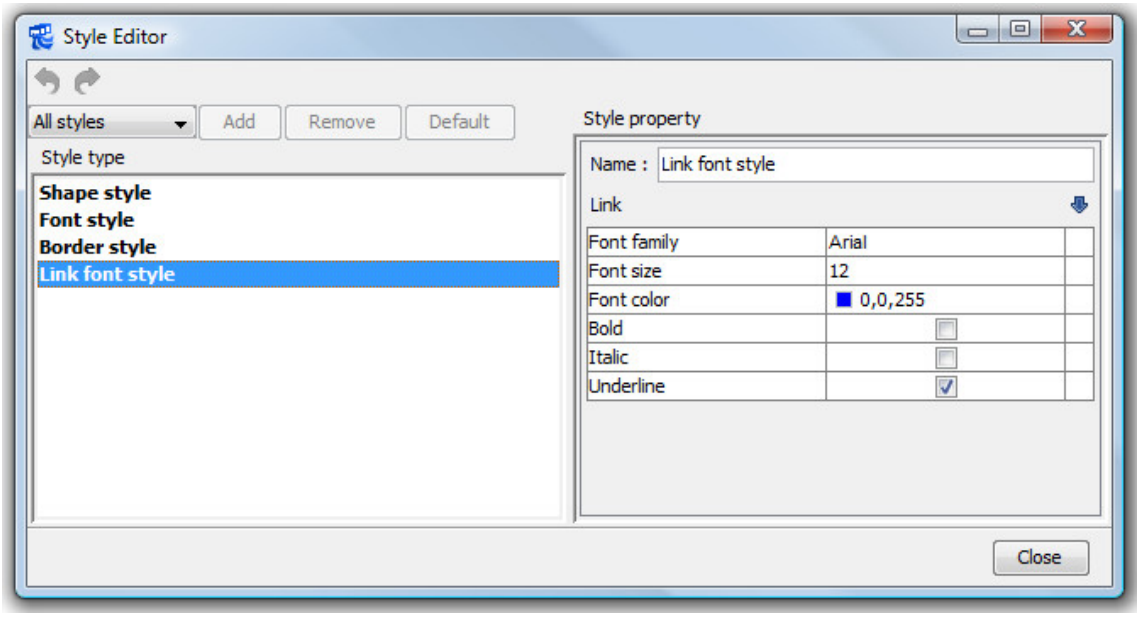


Style editor

The Style editor can be used with all the content elements that contain text or a border. Style changes done in the editor will be displayed in the element. We can open them from menu Window > Style editor.

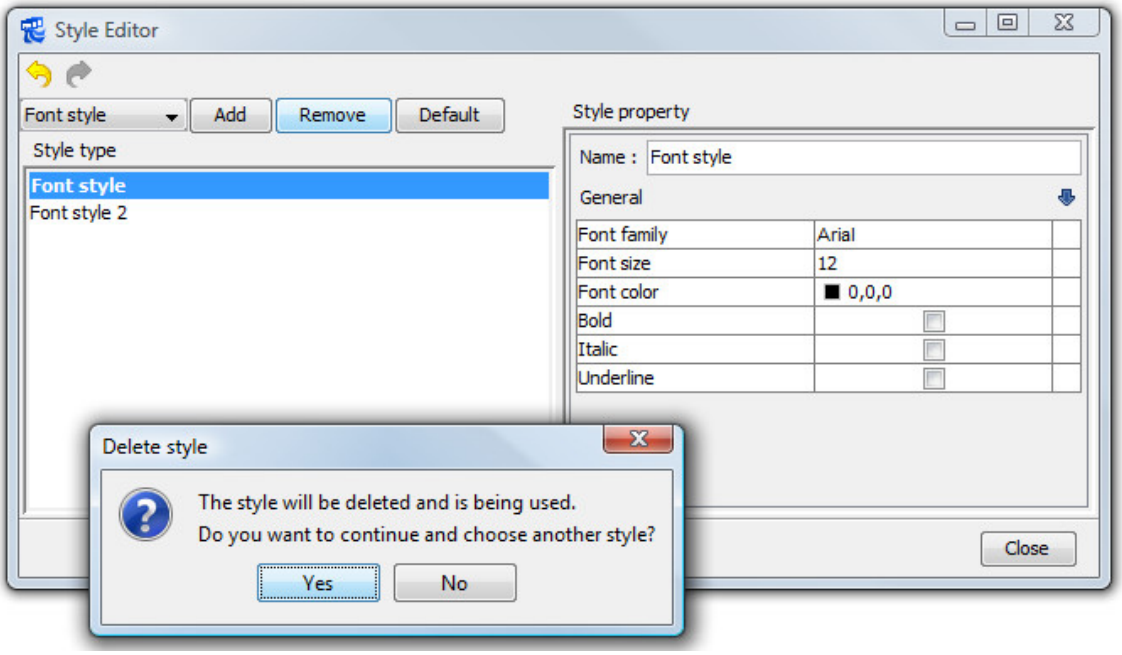


From here we are able to edit the styles of border, shape and font (including the font with the link), as well as those of the Table of contents.



To create a new style we have to select as existing style unfolding tab All styles and clicking on one of them (for example, Font style). After that, we click on the Add button and a new style will be generated from the existing selected style inheriting its properties. In the window in the right handside all properties that can be modified and costumized will be displayed, starting with the parent style, the one we have inherited the features from. Properties that will remain as in the parent style appear with this mark , while the modified ones will appear with the mark . We must remember that if modify the parent style, all these modifications will affect automatically al the inherited styles, except in the modified properties. Using the arrows on top of the style drop down list we can undo and redo all style changes

We can delete a style by clicking on the Remove button. If we delete a style that is being used, we will get a warning and the opportunity of choosing which new style should be the replacement for the deleted style in all places where it was used.



The Default Button allows me to choose what style will be default from then on. Each new created element will use that style until otherwise indicated.

6. BEANS AND CONTENT ELEMENT ATTRIBUTES

In this chapter we explain how to use the various beans and the attributes that can be defined in each of the content elements. In order to avoid repetition, we have omitted the attributes that can be defined with the attribute editors, which have already been mentioned in:

(Section Attribute Editors in Chapter 5: Creating Content.)

To include a bean in a page you must do the following: select the bean you want from the Bean Palette by clicking on the relevant icon and place the mouse pointer in the Pages Desktop Area where you want to insert it. You then have to define its attributes in the Properties area of the bottom-left side of the page. You can also edit them from the Attributes window, either by clicking on the [Attributes] button in the Toolbar or by selecting the Attributes option from the View menu.

6.1 Content Elements in EasyProf®

The Content Elements included in EasyProf® v 3 are as follows. The first icon in the Content Elements bar is the mouse pointer and it allows you to cancel inclusion of a Content Element and return to the standard mouse pointer if you decide not to include a Content Element in the Pages Desktop Area after selecting it.

Arrow: cancels the inclusión o fan element and recovers the default pointer.

Line: allows you to insert lines.

Polygon: inserts polygons and complex shapes.

Curve: inserts curved lines.

Rectangle (Autoshape): allows us to insert all type of predefined shapes: rectangle, circle, star...

Audio: allows you to insert sound files.

Image: allows you to insert an image by selecting a file (JPEG, GIF or PNG).

Carousel: allows you to include a succession of images that follow each other in an order, producing an animation effect.

Video: allows you to insert video files like MPEG, WMV, AVI and much more.

Flash: allows you to insert Flash movies (SWF).

Active label: allows you to insert an interactive text that works as the source of an action.

Art label: allows you to insert titles plenty of effects such as shadows or rotation.

Rich text: allows you to insert text and to enrich it with a lot of format options such as bulleted or numbered lists, text alignment or the possibility of inserting images or links.

Table: allows you to insert tables.

Timer: Timers allow you to arrange temporarily a sequence of actions. You must define when the timer starts running and set its duration.

Button: allows you to insert a button as the source of an action.

Hotspot: allows you to define an interactive area that works as the source of an action.

Pop-up: allows you to include pop-up windows.

Pop-up dialog: allows you to display secundary pop-up windows in the same page.

Progress bar: allows you to include a progress bar.

Textfield: Inserts a field where we can introduce or display text of a variable.

Htlm content: allows you to insert content from the internet.

Table of contents: This allows you to insert an interactive index as a means of browsing. It gets the information from the table of contents of the project.

Path: This allows you to insert an indicator of the page's position in the project.

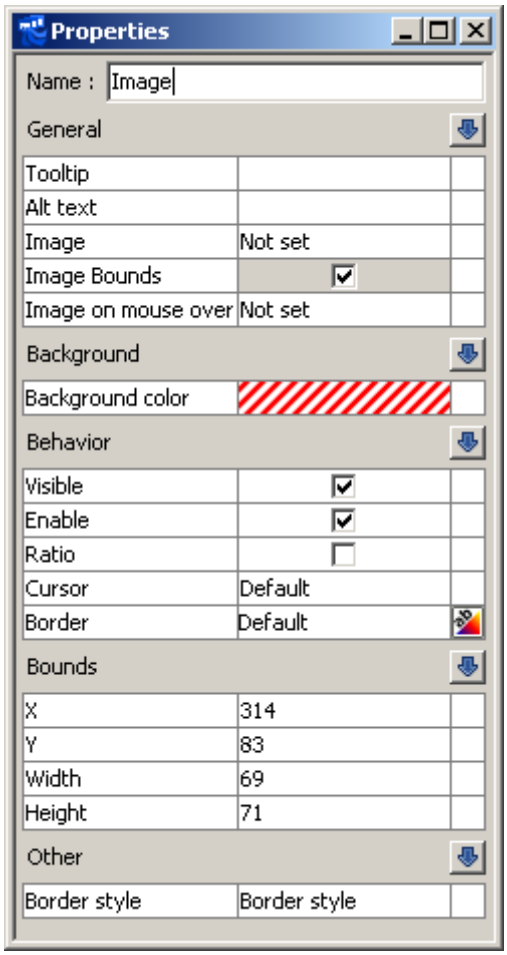
Test container: allows you to insert tests, including a great diversity of questions (true/false, multiple choice, multiple response, fill in the blank or drag & drop questions), as well as a powerful tool to manage them.

Test feedback: This allows you to show the feedback of the tests.

6.2. Content element attributes

The content element attributes are defined by using the Attributes window.

Each content element has a set of basic attributes that can be defined by using the Basic attributes window, which is very similar in all the Content Elements and is made up of the editable attributes and information about the position and size of the Content Element.



Name

This box shows the name of the content element and lets you edit it. We recommend you customize the name suggested by the application to make it easier to create actions later. For example, a table that contains information about the annual expenses of a company's departments could be called "ExpensesYearDept" instead of having a vague name such as "Table 12".

General properties

Properties that define the main characteristics of the content element.

Position

Those data include the content element name, its position and size. They are informative and editable values that allow to position and dimension the element with a pixel level precision.

Position: Shows the co-ordinates (X – horizontal; Y – vertical) that indicate the position of the content element inside the page, allowing you to change it. The point (0,0) is the top left-hand corner of the page and the units are pixels. In the line, position indicate cordinates of one of the extremes.

Size: Displays dimensions of the content element in pixels (W– width; H – height) and allows you to edit the size. In the line, parameters width and height are replaced by coordinates X2 – Y2 that indicate the position of the othe end.

Proportional: It allows us to force the element to keep proportions even if we modify its size or appearance (either by mouse or by size properties). If we broaden its width, height will be automatically modify in the same proportion.

Aspect

Permits defining some properties related with the Content Element view, such as the borders or the kind of cursor that will appear when interacting with it.

Other properties

Besides the basic properties, most of the content elements have got additional specific properties.

6.3. General attributes of the content elements

There is a set of general properties that are common to several content elements. They are described below:

Visible: If the checkbox is activated, the content element will be visible; otherwise it will stay hidden. This quality is useful when generating actions with the aim of showing an element that would otherwise remain hidden or that is visible and is hidden after carrying out the action. For example, showing a list of themes only when the mouse button moves over a certain area of the screen.

Opaque: An opaque content element will be the same color as the background color selected for it (or the preset color if it is activated). However, if the opaque option is given the value No, the element's background will be transparent and any element located behind it or the page background will be visible, depending on the case.

Editable: If this option is activated, the content element can be edited by the end user (which for example would make it possible to enter text in a table, text input field, etc.). The way in which this attribute works can be seen in execution mode. This option is useful in cases where the end user must enter data in a certain field.

For further information please see Chapter 7 – Actions and Interactivity.

Enabled : This option allows you to activate and deactivate interactive elements' actions. In this way, you can make an element remain inactive until a certain action has been carried out or vice versa; or you can make an element deactivate when an action is performed. For example, you can make an active button deactivate once it has been clicked so that it cannot be used again.

For further information please see Chapter 7 – Actions and Interactivity.

Ratio: By enabling this option the Content Element will recover its original proportion.

It is worth making sure that the default attributes are the ones you want changing them if necessary. Whether an attribute is enabled or disabled by default will depend on the characteristics of the particular content element and what the user is deemed most likely to need in each case.

6.4 Description of the content elements

All of the content elements included in this version of EasyProf® are described below, as well as how to use them and define their attributes Description of the content elements

Page

As it is said in the section Pages and Master Pages as Content Elements from Chapter 5, pages as well as Master Pages also are described like any other content elements because they have editable properties. In this sense we can classified them like Content Elements.

In this chapter, only pages properties will be commented, without defining further details that will be given in the following pages of the present manual.

General properties

Master Page Allows you to define the Master Page.

Inheritance: Allows you to define the inheritance of the elements coming from the master page.

Background

Background color The choosen color will be shown as the background of the page.

Background image You can also define an image for defining a background for the page.

Image position: You can choose between three options. Thanks to this option, you are able to center the image, expand it or you also have the choice to use the mosaic option.

Center – You can insert the image in the middle of the page defining the background.

Mosaic – This option allows you to insert the same image around the page b (the effect is like a mosaic of images).

Expand – This option expands the image using the entire page.

Master Pages

Master pages have their own properties and it is also possible include content elements in there; is the reason why they also considered as another content element.

Master pages have the same properties of pages, already defined above. However, two exceptions are defined:

Master page and inheritance: they are not included because a master page will never inherite any contents from another master page.

Bounds: It allows you to define the width and height of the page.

For further information, you can take a look at the section Master Page Definition in Chapter 2: A new title creation.

Line

This lets you insert a line in the page and define the characteristics of its ends: head and tail.

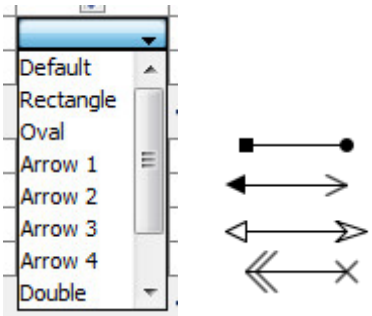
General properties:

Color: This lets you choose the color of the line. See the Color editor section from Chapter 5: Contents Creation.

Tipe of line: You can choose between several different types of line. Normal (Default line), dotted or dashed.

Thickness: It allows you to define the line's thickness.

Start and End: They refer to the ends of the line. Different shapes can be chosen among different shapes like arrows or circles.



Smoothing: Selected by default, it makes the curves look more realistic by adding halftones. If we deselect this option, chosen color will be used only for the line but curves and oblique lines will display a pixelated effect called aliasing.

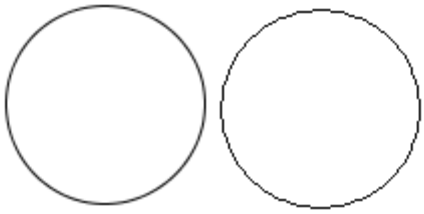
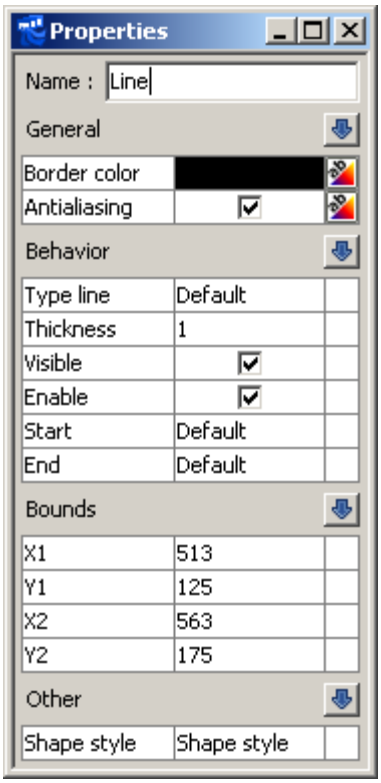


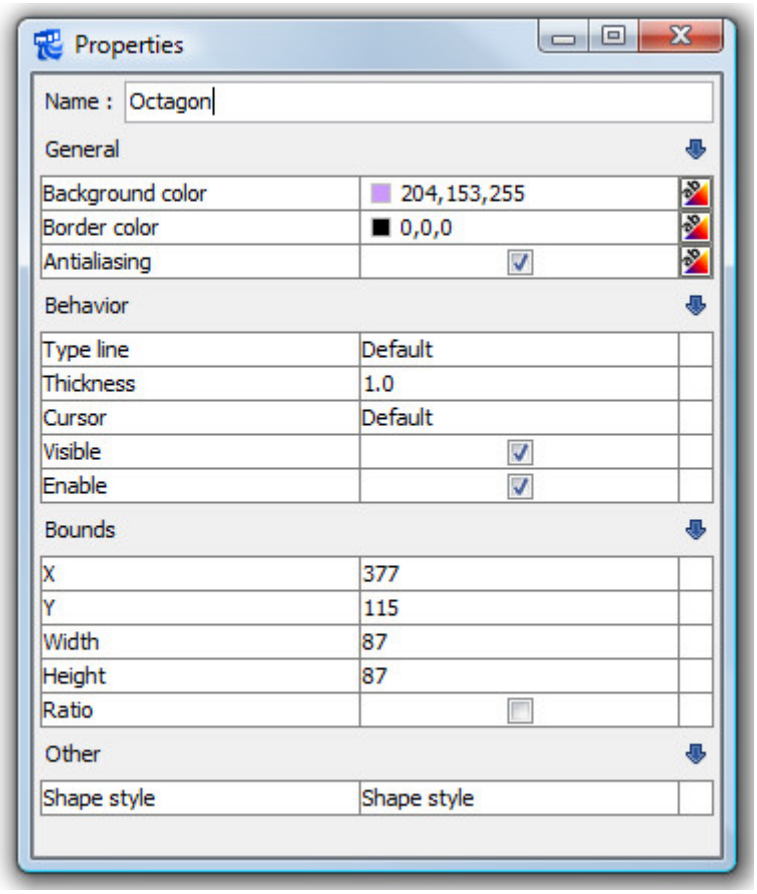
Figure style: Styles can be defined for each figure. A style implies comun properties. When a style is modified, all the elements's properties change.

(See section Style editor in Chapter 5: Content creation)

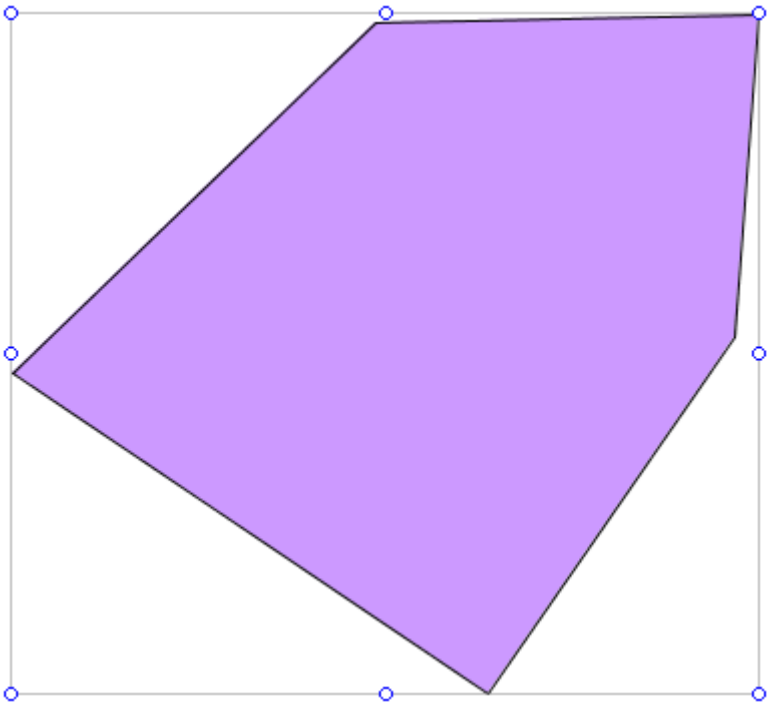


Polygon

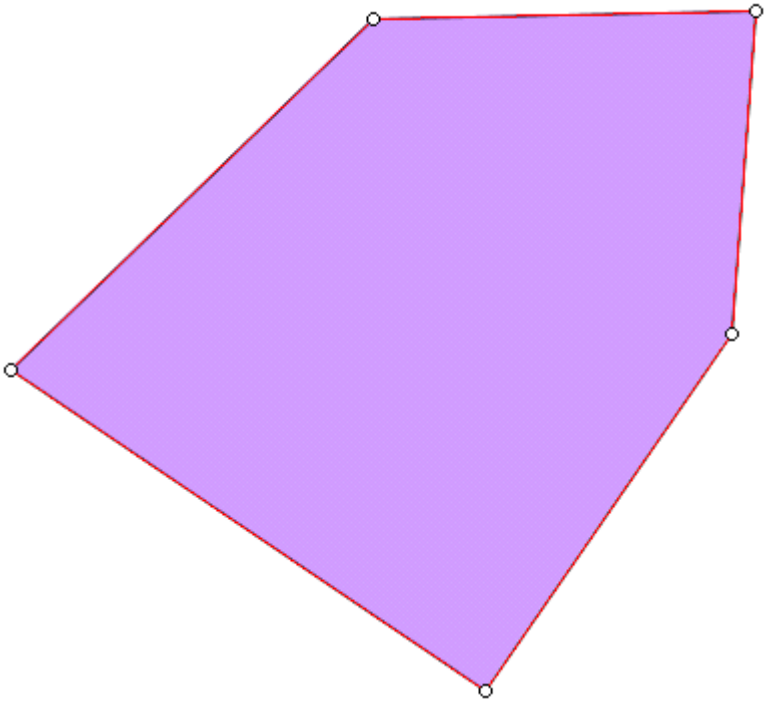
A polygon is a content element that allows us to introduce complex shapes in EasyProf® . After selecting the polygon element, we will obtain a new corner for the polygon each time we click on the screen. We can create as many angles as desired, from a minimum of 3, before closing the figure. To close it we have to close on the first point or double click to close it automatically. Once closed, we can define its properties as we do in the cases of Rectangles or Oval shapes. Its properties are the same except Shape style and Proportionsl, will not be available for the created polygon.



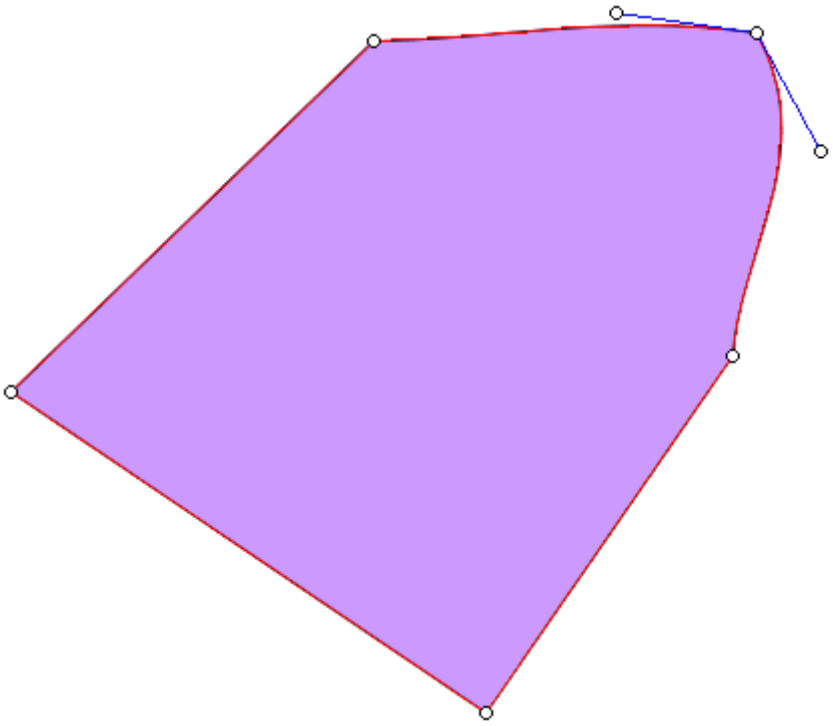
The most interesting feature of the Polygon is that, once closed, it can be edited in two different ways. By clicking on the polygon, eight eition points will appear as they usually do in all figures. Moving them will bring changes in the polygon's size. Similarly, if we click inside the figure we can move it unchanged.



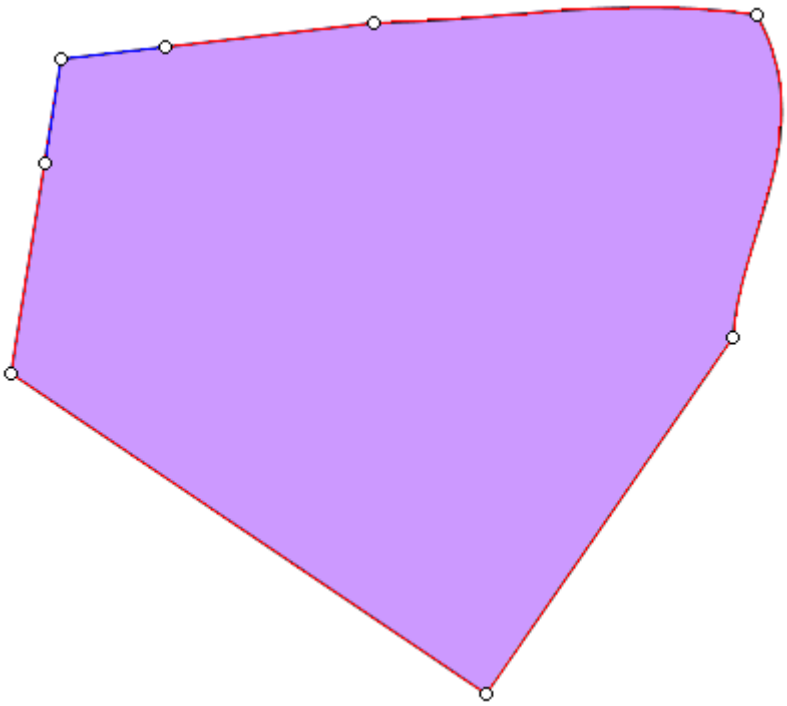
When double clicking on the polygon, new editing points appear in the figure's vertex.



By moving these points we can modify the figure at our will. Dragging them will change the angles. If we select them, two new points will appear that will allow us to change the angles in curves. In case we do not like the obtained change, we can always undo it double clicking on the modified point.



If we click on any line (without edition points) and then drag, we will create a new angle with its corresponding editing points.

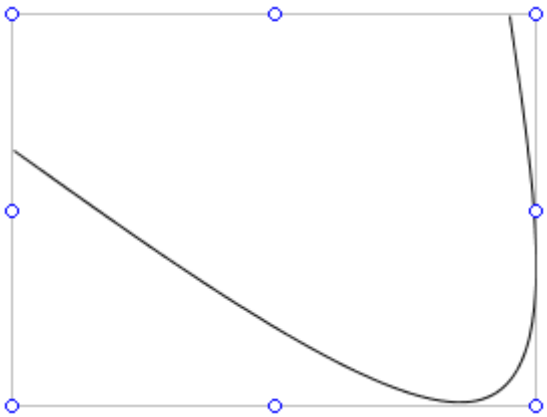


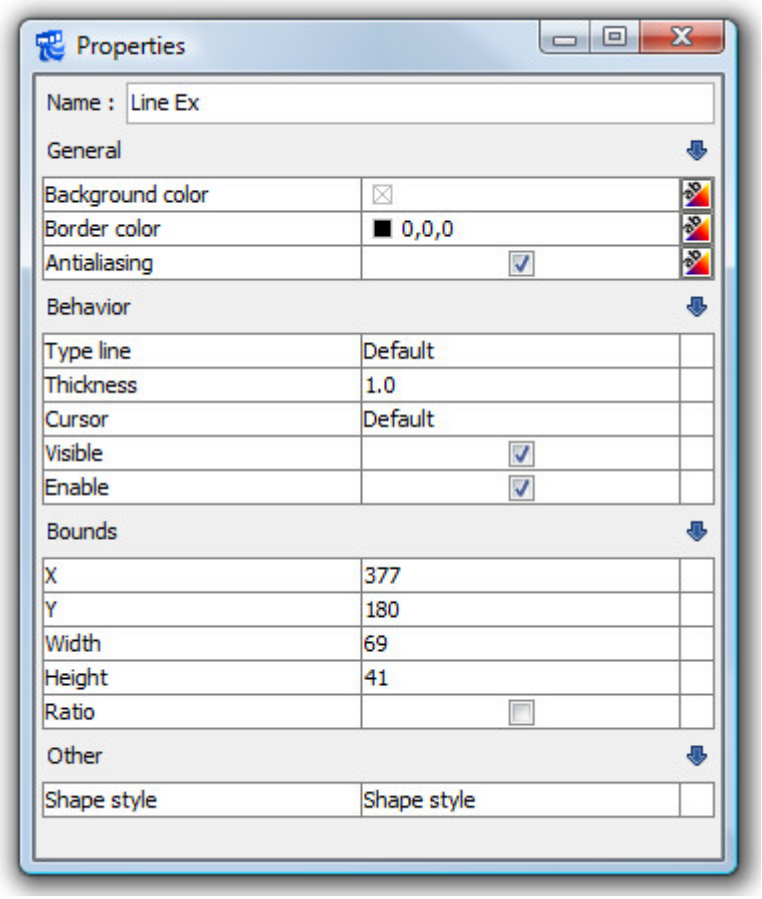
We can remove those new angles by double clicking on the control point.

Curve

Element curve works like the polygon, with the difference that it allows the possibility os open figures and by default all angles are converted into curves. Properties are the same than those of the Polygon, including the background color, because if we place our last point on top of the first, our figure will become a closed figure.

As in the Polygon, we may create new points of control clicking and dragging on any point of the line and erase them by double clicking on these points.



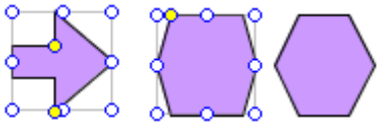


AutoShapes

Figures are basic shapes such as the Rectangle and the Oval. In previous EasyProf® versions there was a specific button for each figure. Now they all can be easily generated from the autoshape drop-down button. Its properties are very similar to those of lines but two more options are included such as Background color, that allows us to choose the color of the filling of the figure, and Proportional, that matches the figure proportions. Background color is None by default, that is why figure looks transparent.

Some of the elements in the properties window, those referred to border style, display at its right the icon Disable style button. Once a style has been defined for the shape, this will not be applied in the sections where the style has not been enabled.

To view all available AutoShapes we must click on the arrow that appears under the shape selected (a rectangle by default). On clicking on it AutoShape menu drops down displaying a list of available figures, among which there is the rectangle, the oval, triangles, hexagons and different types of arrows. All their properties can be modified dragging the blue modifiers that are displayed when we select a figure in the screen. Some of these shapes also have special modifiers (displayed in yellow) that allow customization of parameters of the shape, as the thickness of an arrow or the angle of an hexagon.



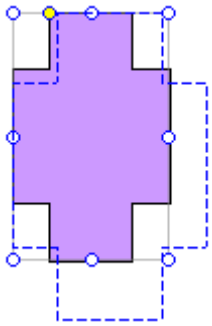
In the case of hexagons and octogons, for example, the figure appears by default inits regular shape. By using the yellow modifier we can modify some of its angles turning the figure irregular.

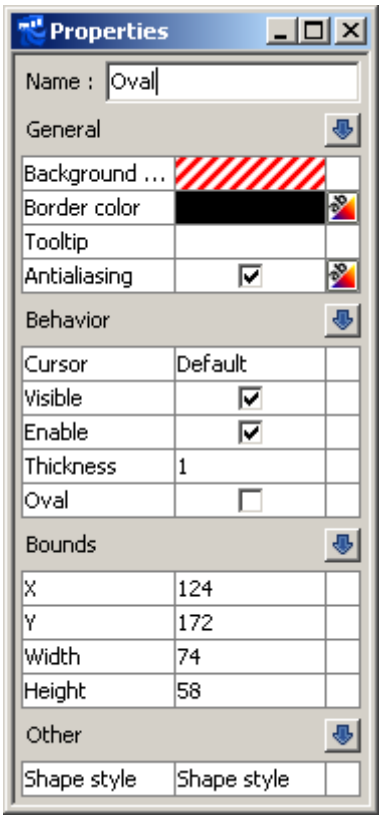
Once we have used an AutoShape, its icon replaces the rectangle in the Content element palette.To use

the rectangle again we have to unfold the list (clicking on the arrow under the icon) and select the rectangle again.

Scaling AutoShapes

We can vary the size of the AuroShape pressing the blue modifier and dragging it until reaching the desired size. However, by doing this we manually modify height and width of the shape, thus modifying its proportions. If once the modifier has been selected we press the key Control, when we move the modifier it will keep all proportions, so that we will vary the scale without modifying its proportion.





Image

This element lets you insert image files in the page. Files must have the extensions "*.gif" (normal or animated GIF files) or "*.jpg" (JPEG files) and "*.png" (Portable Network Graphics files, similar to GIF but more actual)

Basic properties

Image: This is used to select the image file that you want to insert in the page. To do this, click on the Choose button, the small button to the right of the File field. This will open the file browser so you can search for the file you want. It is worth mentioning that it is very important to introduce previously all the images in the Resource manager before inserting any image in the page.

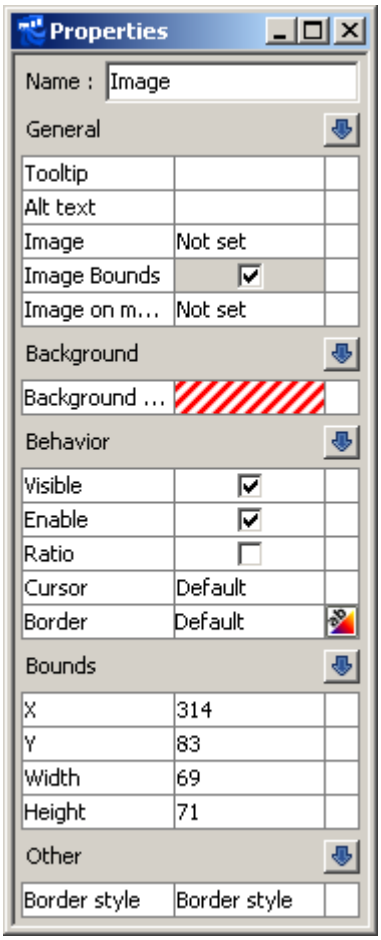
Alternative text: It allows you to introduce the text that will be shown in browsers where images are disabled. Similarly, it allows us to meet the accesibility standards to make navigation easier for people with visual impairments.

Tooltip: A tooltip is a specific label that appears when you leave the Mouse over a content element. This chart allows you to introduce the interested text as a tooltip. If you do not introduce any text, the tooltip will not appear.

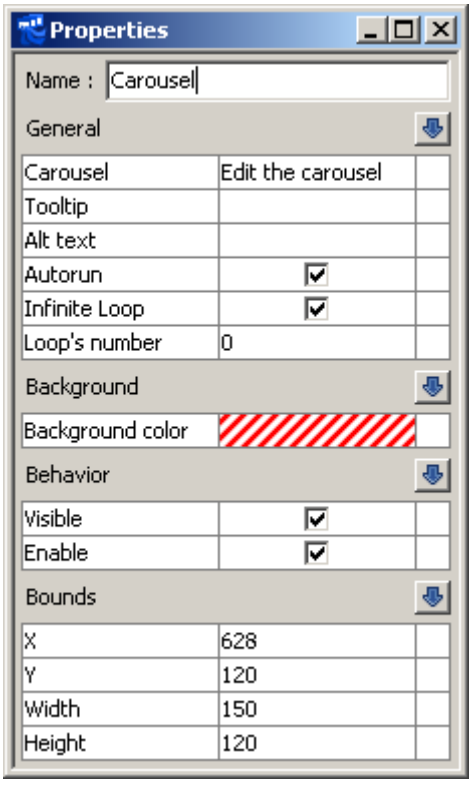
Image on mouse: Allows you to create a special effect with the Mouse without creating any action.

Image bounds: If you press this option you will obtain the original aspect (dimension) of the image.

Proportional: It allows the possibility of modifying the size of the image keeping always the original proportions.


Properties
Name : Image
General
Tooltip
Alt text
Image
Not set
Image Bounds
Image on m...
Not set
Background
Background ...
Behavior
Visible
Enable
Ratio
Cursor
Default
Border
Default
Bounds
X
314
Y
83
Width
69
Height
71
Other
Border style
Border style

Carousel


Properties
Name : Carousel
General
Carousel
Edit the carousel
Tooltip
Alt text
Autorun
Infinite Loop
Loop's number
0
Background
Background color
Behavior
Visible
Enable
Bounds
X
628
Y
120
Width
150
Height
120

This lets you insert a set of images that will follow in order, allowing you to create animated images. Images can be set to follow one another automatically or at the command of the end user. Sizes of all displayed pictures in the Carousel will adapt to the first image.

The carrussel properties are very similar than image properties. However, the following properties are also included in the chart:

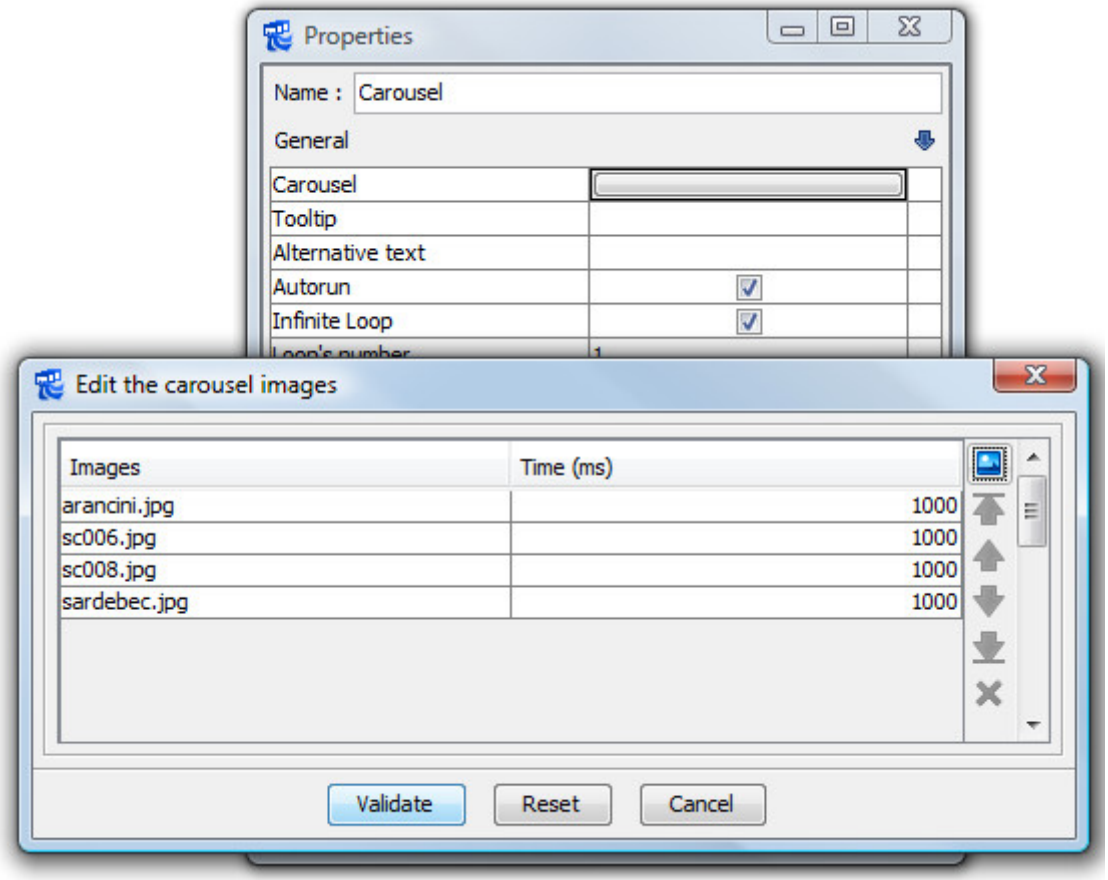
Carrusel: It allows you to select images that will take part in the carrusel and you also can select how much time (milliseconds) will be shown. If you click this option, an editor will be opened and a image list will appear. For adding an image, you have to select the corresponding button. The Resource manager will be opened in order to slect the correct image. Then, you can decide the time interval between the carrousel's images. The time must be expressed in tenths of a second.

Therefore, if you want to show an image during two seconds, you will have to introduce the number 2000. Once this time is finished, the next image will appear.

Autorun: If you select the Auto property, the carousel images will automatically follow in sequence without having to associate an action. If you do not select this option, an action must be associated for the carousel to start.

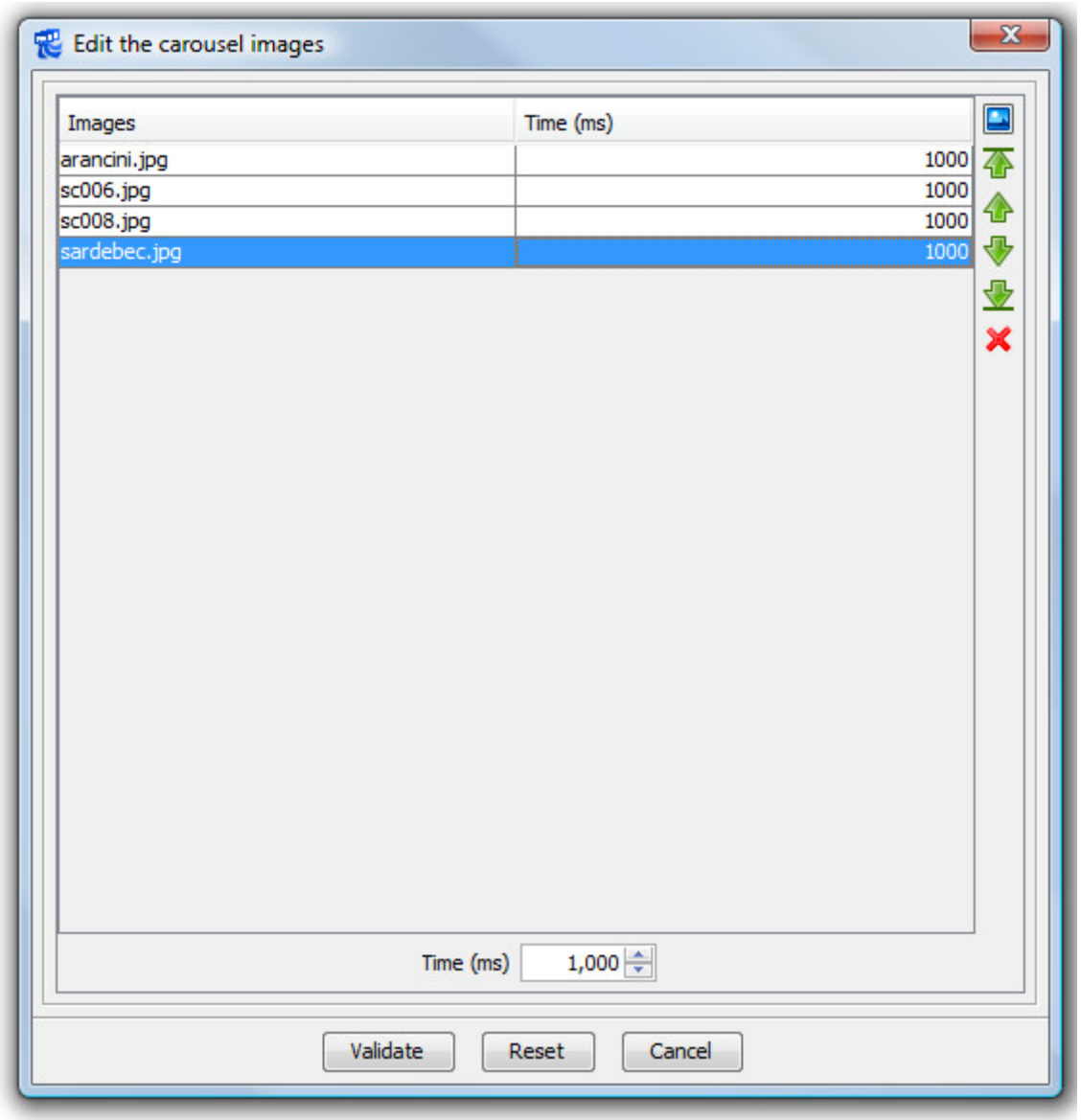
Infinite loop: The carousel image sequence will be infinitely shown.

Loops number: It allows you to define how many times the sequence will be done. The default value is 0, in this case, the sequence will be done only once and then, it will stop.



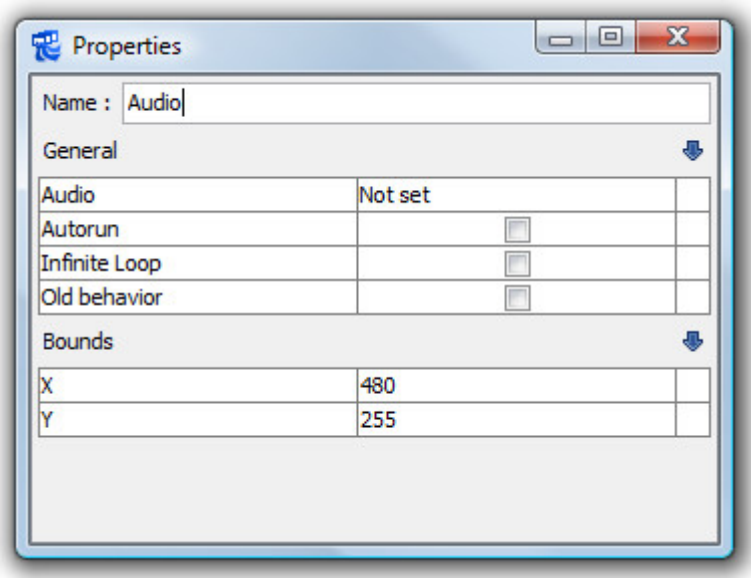
When we select "Edit Carousel images" appears a window where we can add images. To do so we will click on the image button and will select the one we want to add from the resource manager. We can moify the time that each image will be displayed before changing automatically modifying the field that we find right after its name. Default value is 1 second (1000 milliseconds). Order of display can be

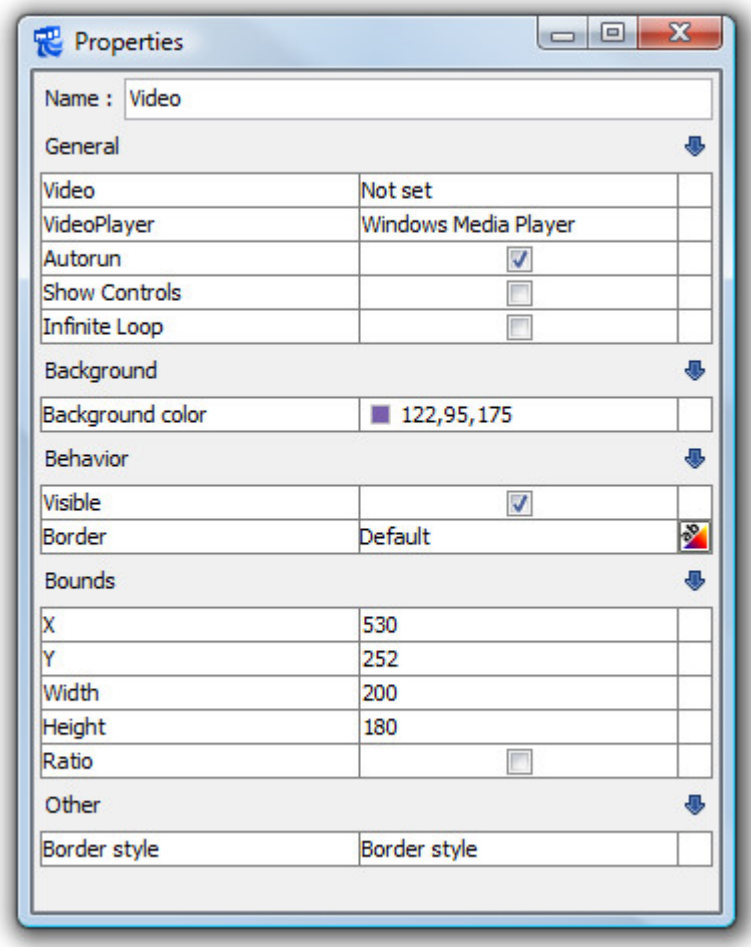
changed as well, to do so we only have to move images with the green arrows. We cal also delete the unwanted images by pressing the red cross button. If we wish to change the time of display of all images in one single click we can do it in the lower part of the screen.



Media

There are three types of content elements that allow us to incuclude media in a page: video, audio and flash. Media are very valuable resources when producing multimedia material, e-learning, etc. If we decide to include them in our project, we must pay special attention to certain aspects such as file size because their download time in titles published for the web (HTML and HTML-SCORM, see Chapter 10: Publishing the Title) is directly proportional to file's size. To reduce download times, we should always try to use appropiate formats of video and audio compression. All this despite the fact that reducing size of media files may lead to a reduction of resolution, number of colors, image size and video duration, or loss of sound quality and fidelity when dealing with audio files.





Element Media allows incorporating videos and animations. EasyProf® supports the following formats:

- Flash (swf).
- Windows Media Player (aiff, asx, au, avi, asf, mid, mov, mpg, mp2, mp3, mpeg, mvr, mpe, mpa, m1v, wav, wm, wmw, wvx, mp4,f4v, etc).
- Real Player (rm, ra, ram).
- Quicktime (mov).

You need certain files in order to be able to play media files (video and audio mp3): JMF libraries (Java Media Framework). EasyProf® v. 3 uses JMF 2.1.1 Cross Platform Versión.

Media properties are very similar than image properties. However, the following properties are also included in the chart:

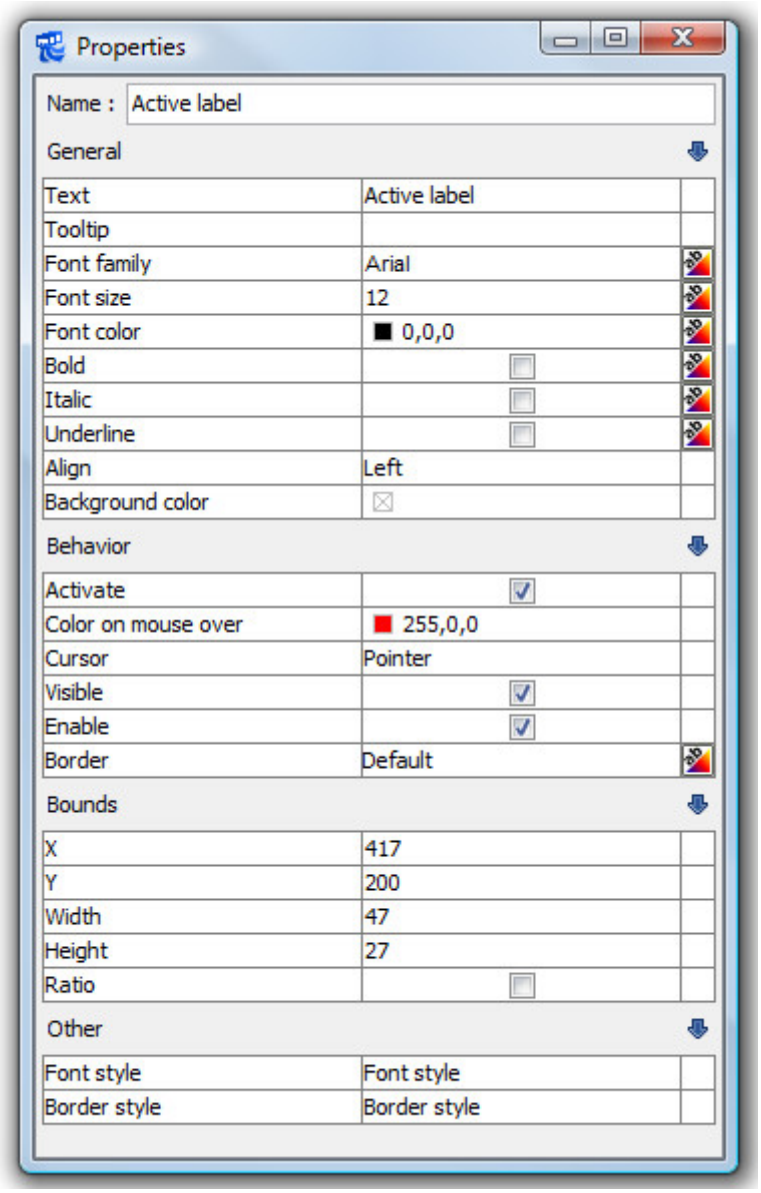
Show controls: Only defined in audio and video. It allows you to show the media execution's controls. The typical controls used to be: execution, advance and go back image, position bar and the animation's properties button. Controls take part in the assigned space of the Media content element. It is very important to consider this issue when you decide to organize the content.

Video player: Only in video. It allows you to select between four default players: Windows Media Player, Real player, FLV player or Quick Time. By choosing the Auto option, best player for each video extension will be used. It should be noted that each user may have only some or none of these players. It should be indicated in the system minimum requirements that for a correct video display will be necessary to have the best player for the used extension.

Picture preview: Only for video files. In the editor, instead of displaying the default image, it displays first frame of selected video.

Active label

This lets you insert a multi-line caption that can be set as the source of an action.

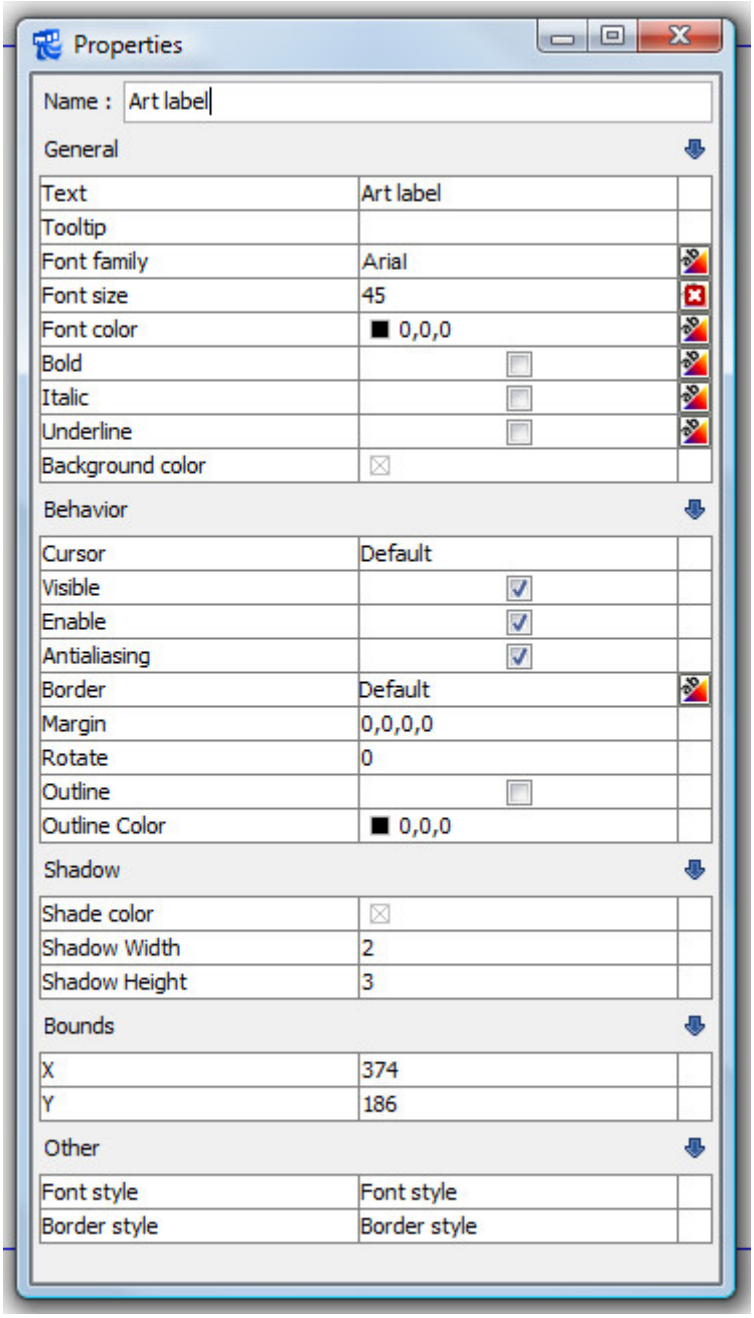


The active label has the same properties as the label, except those which are related to shadow or rotation. The option Active is selected by default. If deselected, colour will not change when cursor is over a content element.

The option Color on mouse over, allows you to select the color of the label when the cursor is over a content element. See section 5 Color editor in Chapter 5: Creating content.

Art label

This lets you insert short text to which various effects can be applied.



Basic properties:

Font: This lets you select the font of the caption on the label. See section 5 Font editor in Chapter 5: Creating content.

Font size: This lets you select the size of the text of the art label.

Font color: This lets you choose the color of the text. See section 5 Color editor in Chapter 5: Creating content.

Bold: When selected, all text is displayed in bold text.

Italic: When selected, all text is displayed in italic.

Underline: When selected, all text is displayed underlined.

Tooltip: A tooltip is an emerging label that appears when mouse is placed on top of a content element. This box lest us introduce text that will appear as a tooltip. If there is no text in this field, tooltip will not be displayed.

Background color: Chosen color will be displayed evenly as content element background.

Text: It allows us to modify text that will be displayed in the content element.

Behaviour :

Border: This lets you put a border around the content element. See the General editors section. See section 5 Border editor in Chapter 5: Creating content.

Border color : This lets you choose the color of the border. See section 5 Color editor in Chapter 5: Creating content.

Rotate: It allows you to rotate the element. Number introduce correspond to the number of degrees that the text will rotate clockwise.

Smoothing: This option improves definition of a text to avoid the aliasing effect, by which contours appear pixellated.

Margin: Allows leaving a vertical and horizontal space all around the text. It is measured in pixels.

Outline: Adds a pixel to the text outline. Its color can be changed to highlight it.

Outline color: This option allows us to change the outline color. To achieve a more visible effect, it is convenient to choose a very different color from that of the font. See section 5 Color editor in Chapter 5: Creating content.

Other: Font style: It allows choosing one of the predetermined text styles. See section 5 Style editor in Chapter 5: Creating content.

Shadow

Shadow color : This lets you choose the color of the shadow.

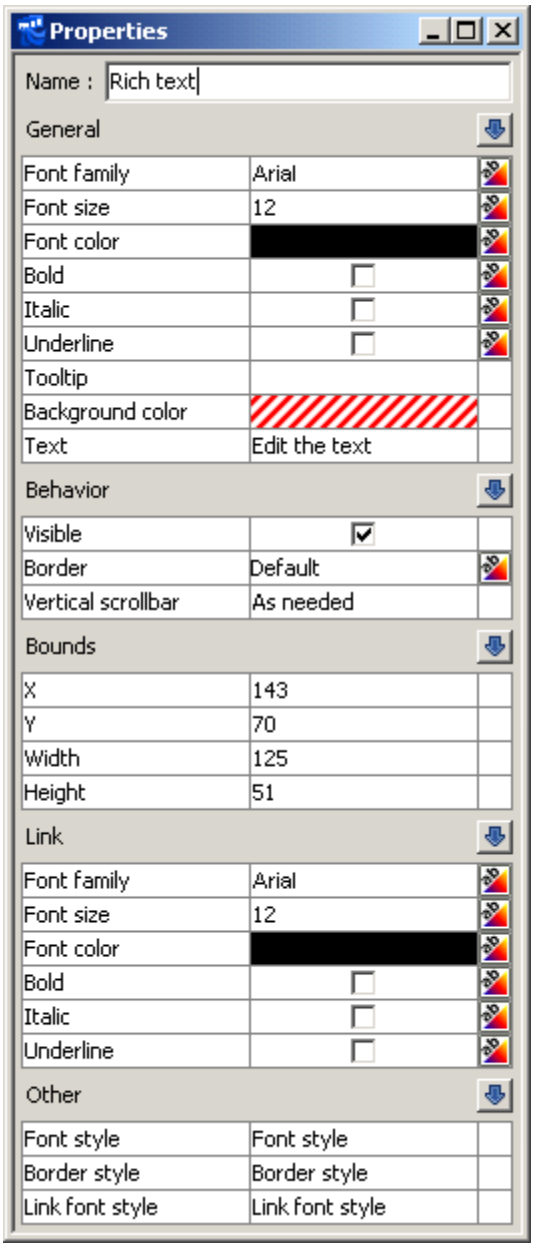
Shadow width : This lets you set the shadow's position in relation to the text, by selecting how many points to the right of the text will be shadow displayed.

Shadow height : This lets you set the shadow's position in relation to the text, by selecting how many points under text will be shadow displayed.

Some of the items in the properties window, those reffering to text style or border style, display at its right the icon Disable style value. When a text style has been defined, this will not be applied in the sections where style has been disabled. For more information see section 5 Style editor in Chapter 5: Creating content.

Rich text

The rich text option allows us to insert text or import it from a text file and edit it. You can insert images and links as well. To do so we will use the Text Editor bar. See section 5 Text editor in Chapter 5: Creating content. To edit the text we have to double click on the text box to display text attributes on the editor.



Basic properties:

Font: It allows you to select the text of the rich text. You can see the section Font's editors from Chapter 5: Content creation.

Font size: This lets you select the size of the text of the rich text.

Font color: This lets you choose the color of the text. See section 5 Color editor in Chapter 5: Creating content.

Bold: When selected, all text is displayed in bold text.

Italic: When selected, all text is displayed in italic.

Underline: When selected, all text is displayed underlined.

Tooltip: A tooltip is an emerging label that appears when mouse is placed on top of a content element. This box lest us introduce text that will appear as a tooltip. If there is no text in this field,

tooltip will not be displayed.

Background color: Chosen color will be displayed evenly as content element background. See section 5 Color editor in Chapter 5: Creating content.

Text: It allows us to modify text that will be displayed in the content element. When clicking on this field, rich text editor will be displayed. This same editor will be displayed as well by double clicking on the field. See section 5 Text editor in Chapter 5: Creating content.

Behavior:

Auto height: Not selected by default. When selected, Text field heigh automatically adapts to the length of the text.

Vertical scrollbar: It allows you to define the way of how the scrollbar will be shown. You can see the following options:

As needed: The scrollbar will be shown if it is necessary.

Never: The scrollbar will be never shown so, if you select this option, maybe the text could not be visible.

Always: The scrollbar will be even shown when it is not necessary.

Others:

Font style: It allows you to select one of the predifined text styles. For further information, see Styles's editor from Chapter 5: Content creation.

Border style: It allows you to select one of the predifined border styles. For further information, see Styles's editor from Chapter 5: Content creation.

Link style: It allows you to select one of the predifined link styles. For further information, see Styles's editor from Chapter 5: Content creation.

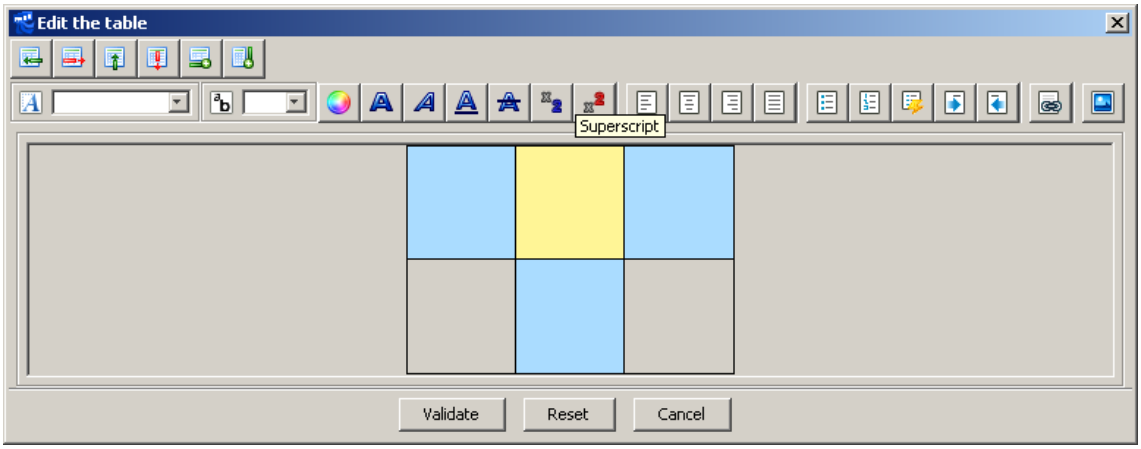
Some of the items in the properties window, those reffering to text style or border style, display at its right the icon Disable style value. When a text style has been defined, this will not be applied in the sections where style has been disabled. For more information see section 5 Style editor in Chapter 5: Creating content.

Table

This lets you include a table and define its characteristics. Besides, tables also admits images and links. You can see the sections Text's editor and Link's editor from Chapter 5: Content creation.

In this case, table's properties are very similiar than attributes from the rich text. In addition, we can describe the following characteristics:

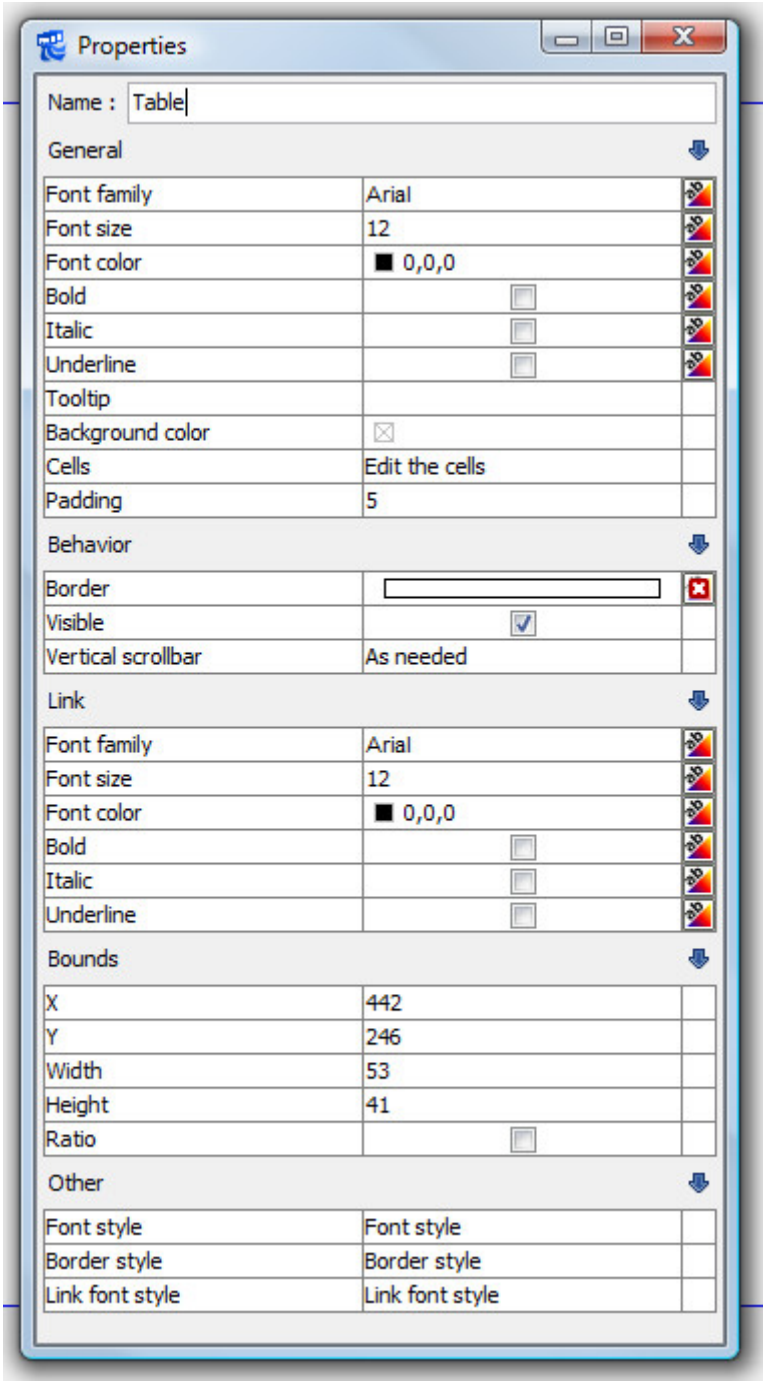
Cells: This option allows us to open the table editor, where we can choose the font, the text color and the background color of the selected cell. See section Table's editor from Chapter 5: Content Edition.



Padding: It allows you to define the internal margin of the cells, so inside texts do not touch lines of the table. It is defined in pixels.

Some of the element in the Properties window, those referring to text style or edges, show at its right a Disable style value icon. When a style has been defined for a text, this will not be applied in those sections where style has been disabled.

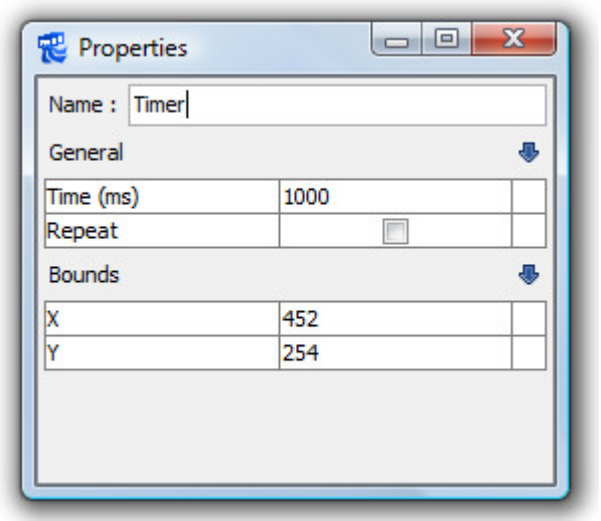
See section Style's editor from Chapter 5: Content Edition.



Timer

This content element lets you insert a timer in the page, master page or pop up page with which you can set the duration of an action. Timer will be the one managing the execution of actions over time. Timer is an invisible element, so that it only has a specific property.

Time (ms): In this field you must enter the duration of the timer in thousandth of a second, so if you want to set a duration of 3 seconds, you must enter the value 3000 in the Duration field.



Button

This inserts an interactive button that can be set as the source of an action.

Basic properties:

Text: In this field you can introduce the interested text that appears in the surface of the button.

Font : Allows you to select the font for the button's caption.

Font color: It allows you to select the button's text font.

Background : This lets you choose the background color of the button.

Cursor: This lets you choose the type of cursor that you want to be shown when the mouse pointer moves over the button. For further details, see Cursor's editor from Chapter 5: Content creation.

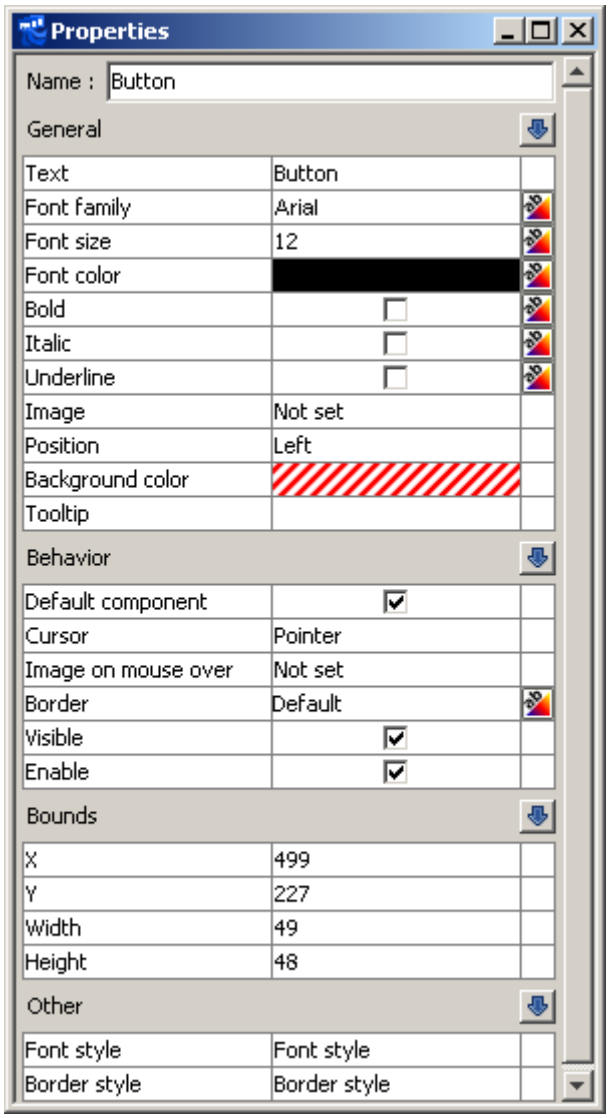
Image (pressed) : Allows you to select the image file for the button that will appear when you press it.

Image (active): It allows you to select the image file for an active button. The resource manager will be opened then, you can select the image that you need.

Position: Allows you to decide the place where the image will be positioned in the button.

Image on mouse over (rollover): Allows you to select the image file for the button that will appear when the cursor moves over it.

Default component: This option it is already selected as default. It creates a button with the characteristics of a Web environment. If you do not select this option, you can edit the button from the beginning (without any predified characteristics).



Hot spot

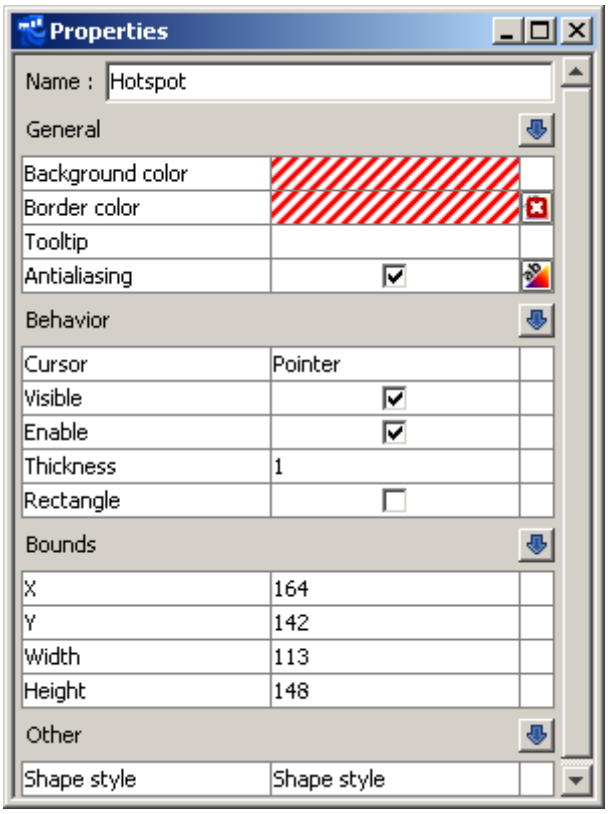
This lets you define an interactive area as the source of an action.

The dimensions of the interactive area can be set by selecting it and dragging the frame to the desired size. You can also define its size in the Properties window by entering the vertical and horizontal dimensions in pixels.

These properties are mainly the same than those of the rectangle, although by default it appears transparent.

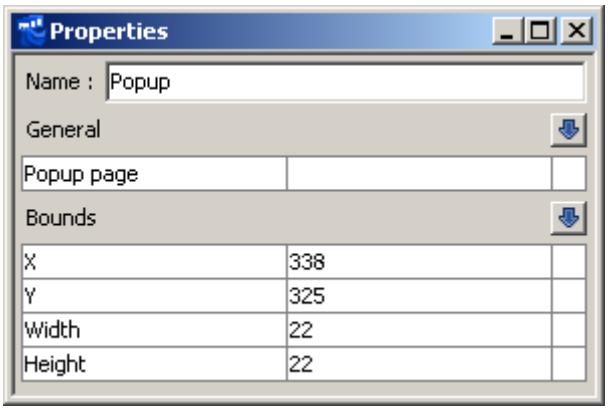
Cursor type

This lets you choose the kind of cursor that will be shown when the mouse pointer is moved over the hot spot (see the Cursor's editor section from Chapter 5: Content Creation).



Pop-up window

This lets you create modal windows and define their attributes. These windows can be made to appear when a certain action is performed on an interactive element.

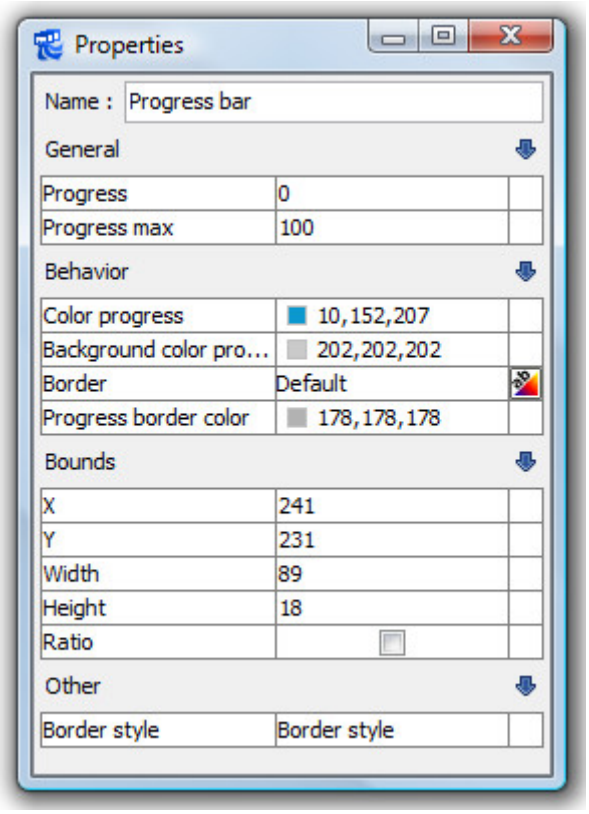


In fact, pop-up is a non-visible element that it is used for deciding what pop-up will be shown and, then, you will generat the action. It is very important taking into account that you have to create a pop up in the section Pop up from the Table of Contents area.

If you click on the property Pop-up page, the Pop Up's manager will be opened. Then, a structure with all the Windows already predefined in the Summary Area will appear. You have to select the interested one and click on the Select button.

Progress bar

Progress bar is a dynamic element that allows us to display in a very visual way, any type of progress that user does in any content. It can b used, for example, to give an idea of how many pagews have been visited out of the total amount, or the score obtained in a test with respect to the maximum possible result. To do so we only have to configure its location, size and color, as well as deciding which values it must display.

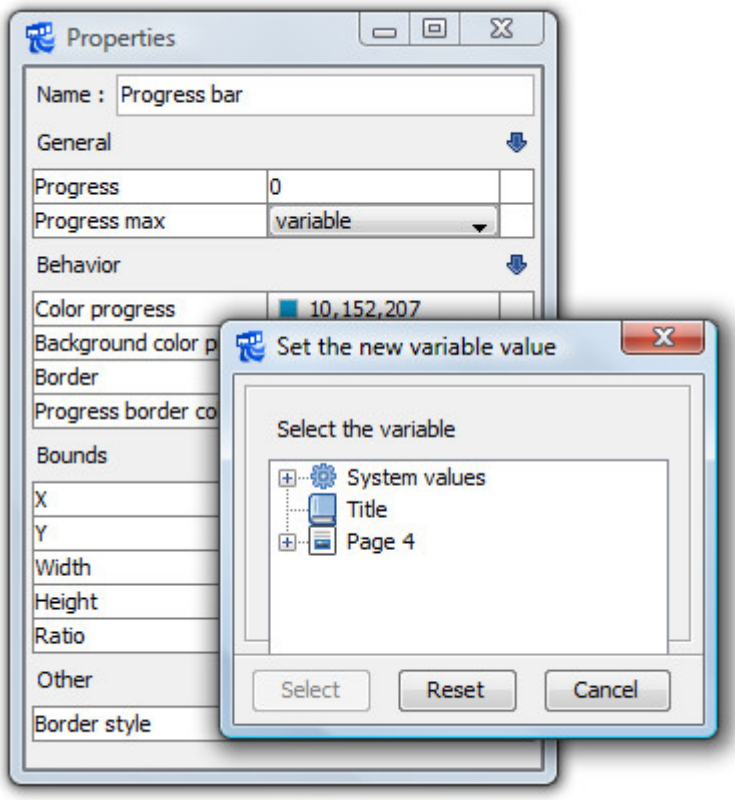


In this case, main properties would be Progress and Maximum. First one displays the current value in the progression (how far has color bar gone) while the second displays the maximum possible value, setting the scale.

We can use values or variables. If we use, for example, value 50 for progress and 100 (by default) as the maximum, a bar filled up to its middle will be displayed. However, progress bar is especially interesting and useful when used with variables.

Using variables we can, for example, display user's progress through the course content using the number of the current working page as progress value and using as maximum number the final number of pages in the course. In this example, it would be very logical to place the Progress bar in the Master page, but it can be used anywhere in the content.

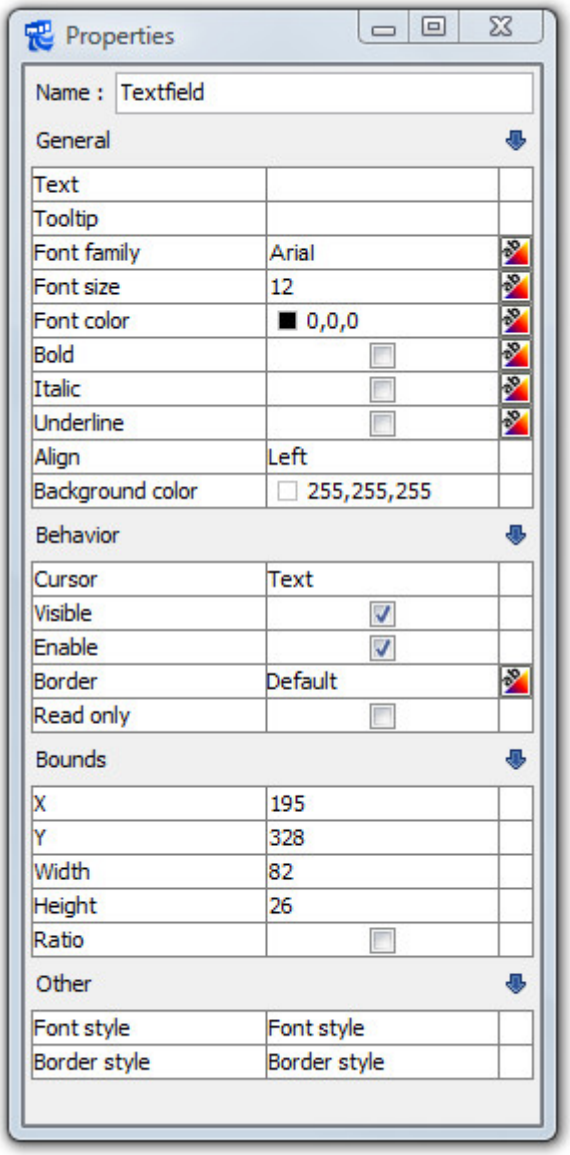
Interactive property modifies the value of the variable assigned to a process.



Text field

This new content element inserts a form field that allows the final user to enter a text or display a variable value. Its way of operation is related with variables and is managed from the actions editor. Its properties are similar to those of the Rich text.

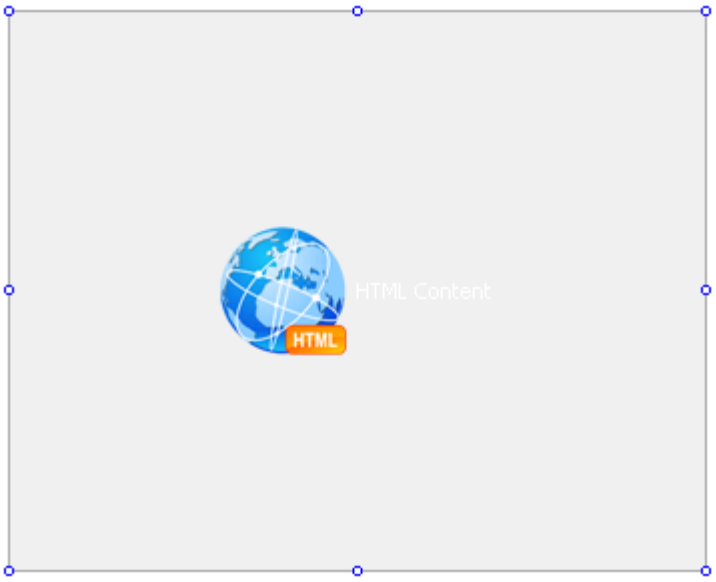
Relationship between Textfields and variables is explained in detailed in section 7.6 Variables.



Html content (Dynamic content)

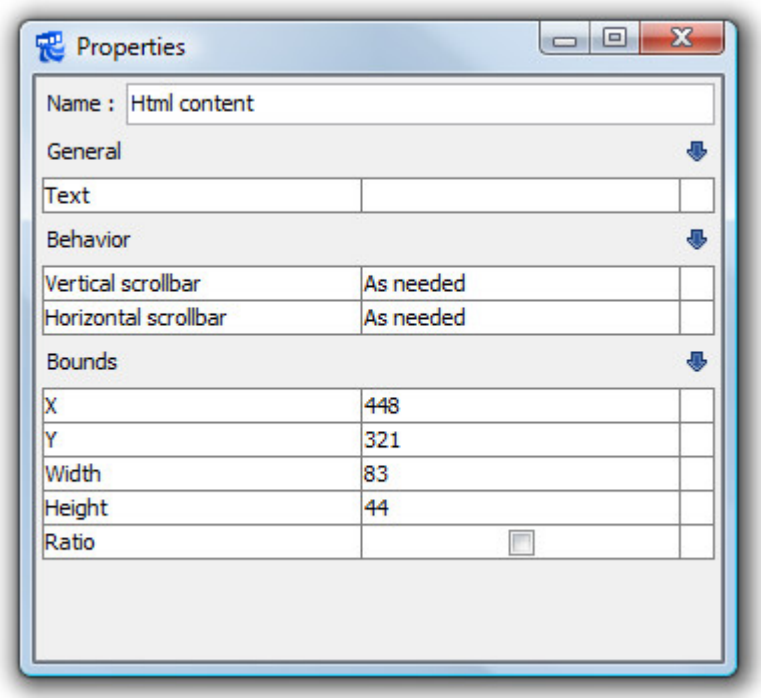
Html content element is a novelty in EasyProf® that allows us to embed content from any internet location in a page. This utility allows us to benefit from the advantages of what has been called Web 2.0, consisting on the proliferation of spaces in the network that promote collaboration between users allowing them to share and reuse resources. Most of these web 2.0 provide the user with codes to insert their content on other web sites. Simply copy the codes, which often appear with names like object or embed, and paste them into the appropriate section of the Properties window of the Html element. When we view the Project published that content will be shown.

Select the component from all the buttons in the operating panel and define its position and size on the page, as we would with other elements like a picture. The screen will display a rectangular image with the symbol of the element of dynamic content..



We can change its position by dragging it in the screen and its size by stretching the lateral sides of the rectangle. We can also change these parameters in the Bounds section of the property sheet.

Here we have a specific property called Content. In this space we must copy the HTML code that we want to be shown once the project is published.



We can also copy the code directly into the element on the screen, by double clicking on it.

This content will not be visible in the editor, only once the project has been published. The HTML code that 2.0 websites show, usually includes a default size for content. If we wish to display this size, regardless of the one determined in EasyProf®, we must check the box Keep original size.

When we generate and visualize the output, the dynamically generated content on the website of origin will be displayed in the space defined by the user.

Aspects to consider:

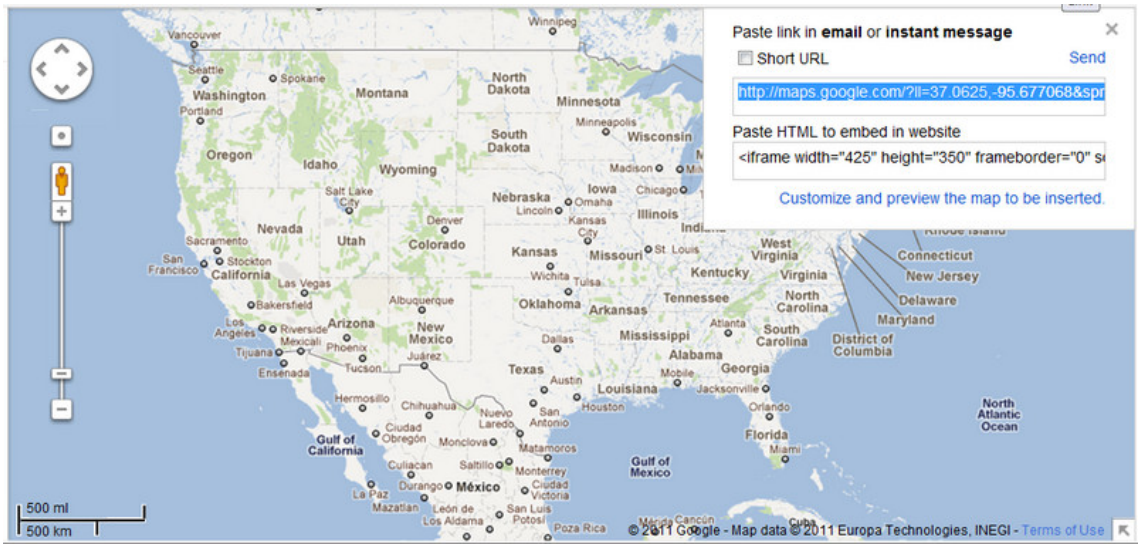
The content shown by the Dynamic content element is generated on the Internet. Therefore, when we generate an output for playback on a CD-ROM it will be displayed only if run on a computer connected to Internet. Otherwise nothing will be displayed. Likewise, when the content is modified in the source web page, changes will be displayed the next time content created with EasyProf® is run, whether or not a new output has been generated. If dynamic content i deleted or moved from its original location on the Internet, output will not display anything.

Examples of funcionality with a dynamic content element:

Dynamic content element allows us to embed content generated in a 2.0 web in our project. Increasingly there are more internet sites that offer such content. Among the most popular there are online service providers such as Youtube or GoogleMaps. If we wish to include in our project a video found in Youtube, we only have to copy the code that appears bellow the Insert caption to the right of the video or left click on top of the video and chose option copy code).

When an output is generated, video is diplayed in the location on the screen previously determined. Such video will have all the functions of Youtube, including the player, controls, full-screen option or links to the original video. EasyProf® allows you to include video in a project but not interact with the control of the same through actions.

If we wish to embed a map from GoogleMap, we only have to go the section Link with this page, located in the upper right corner of the map. We will copy there the code shown to embed in the web site.


Paste link in email or instant message
Short URL
Send
http://maps.google.com/?ll=37.0625,-95.677068&spr
Paste HTML to embed in website
<iframe width="425" height="350" frameborder="0" s
Customize and preview the map to be inserted.
500 mi
500 km
© 2011 Google - Map data © 2011 Europa Technologies, INEGI - Terms of Use

The map shown when generating the output will have all the features of GoogleMaps, such as zoom or the possibility to move in it by dragging it with your mouse.

Likewise, we may include any data source from the network that provides Html code, such as social bookmarks, RSS feeds, galleries of images, podcasts, etc in our page.

Advantages of using dynamic content element:

Most of the content available on the internet can be incorporated into EasyProf® uing elements such as video, audio, flash, carousel... Why is the dynamic content element necessary?

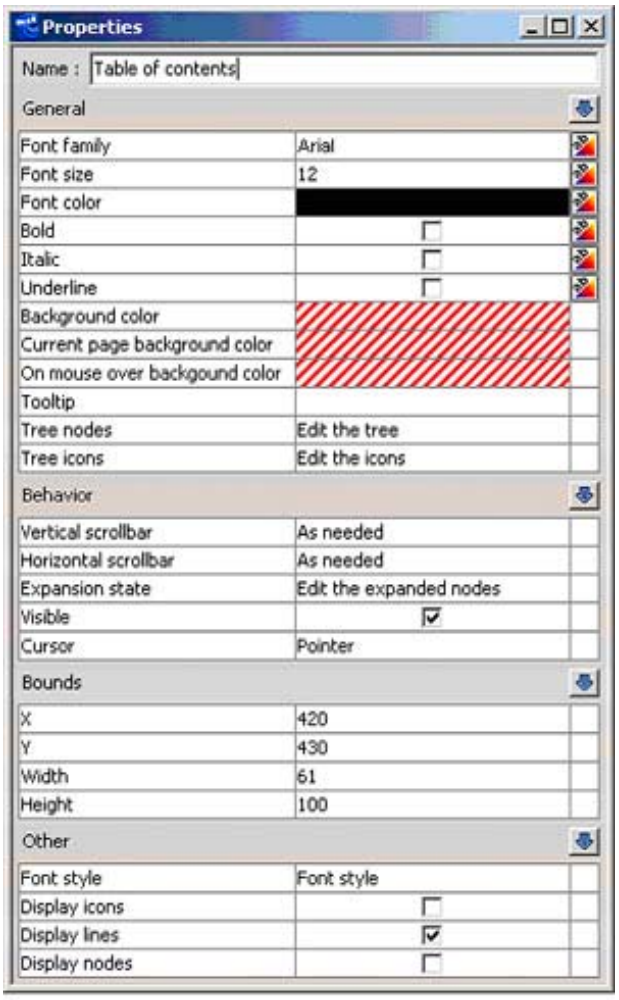
For a start, we must keep in mind that Internet is today the largest content provider in the world. There is a

lot of information that can be very useful for our projects and that is why it is convenient to have a way to incorporate them in our project. We must keep in mind that many of these contents have limited their rights of use so that we cannot download them and use them freely. We can, however, link them to the original location, respecting the authors' conditions of use.

Secondly, we must consider the optimization of our resources when facing the start of a project. If for example we use many videos in a course, we should be aware that charges for storage and transfer of data generated by the display of such videos will run at our expense. Not to mention to which extent will the size of our work files increase, which obliges us to invest in more powerful computers and makes it harder for the final user to visualize when they have old equipment. If our videos are already posted on the Internet, for example in Youtube, our project will use far fewer resources and will be much faster to edit and publish and much easier to visualize by the final user.

Finally, keep in mind that information changes incredibly fast and in many occasions some of these changes can be foreseen, for example when we incorporate links to legal documents and regulations to our project. With the new dynamic content element we can make a list of links generated on the Internet, either through a social bookmarking site like del.icio.us or through an RSS feed. Each time the final user access to our content, this will automatically search the internet and charge the latest list of available links so we have completely updated our content without having to republish. Something especially interesting when the content has been distributed on CD-ROOM.

Table of Contents



This lets you copy the Table of Contents created to structure the Title onto the page, turning it into an interactive element with which the end user can browse through the Title. This element is especially interesting when it is used in a Master page.

Properties editor displays general properties common to many different elements.

To access specific properties , we only have to click on the Edit button, first available option, that will display Table of contents editor

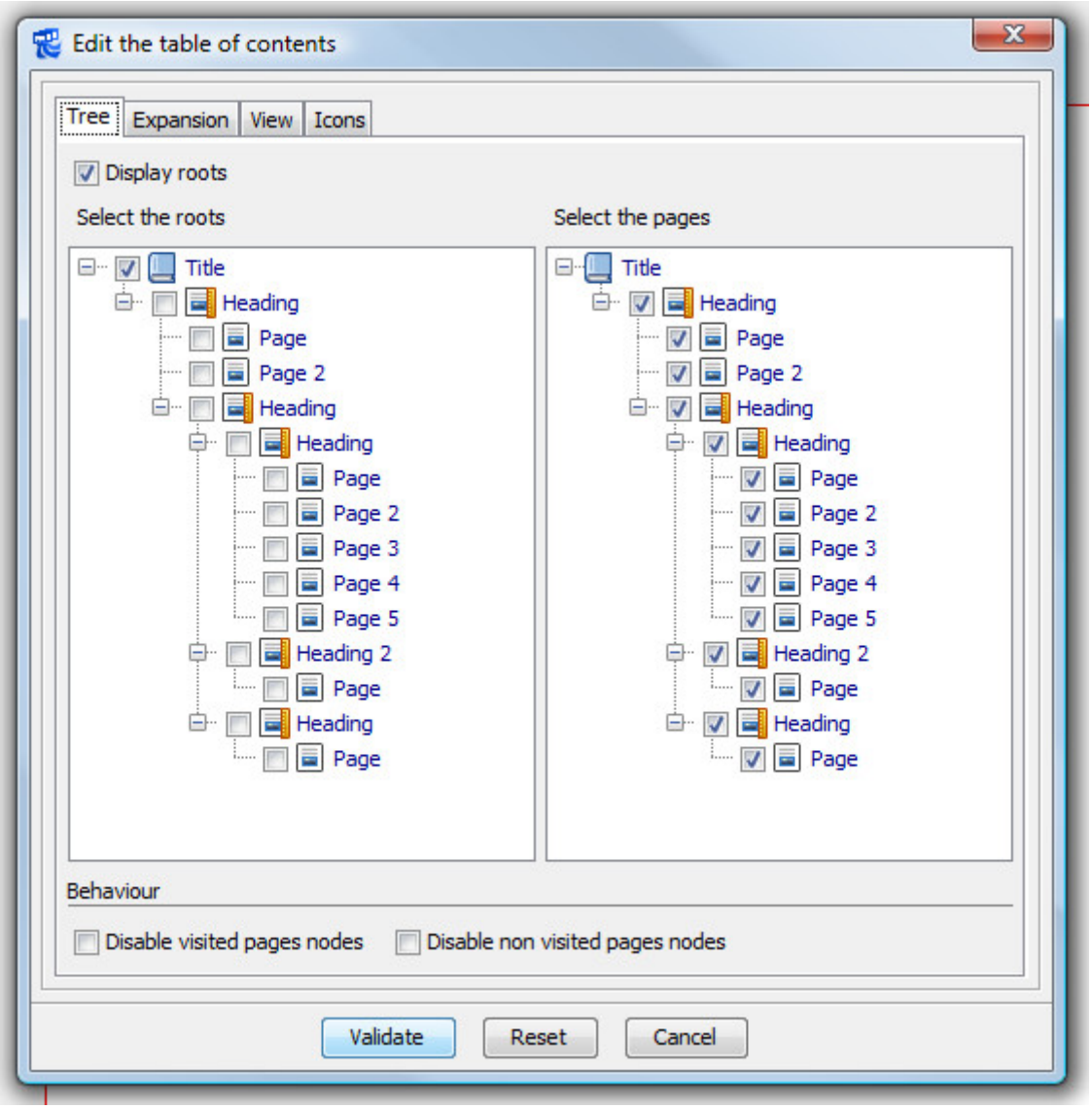


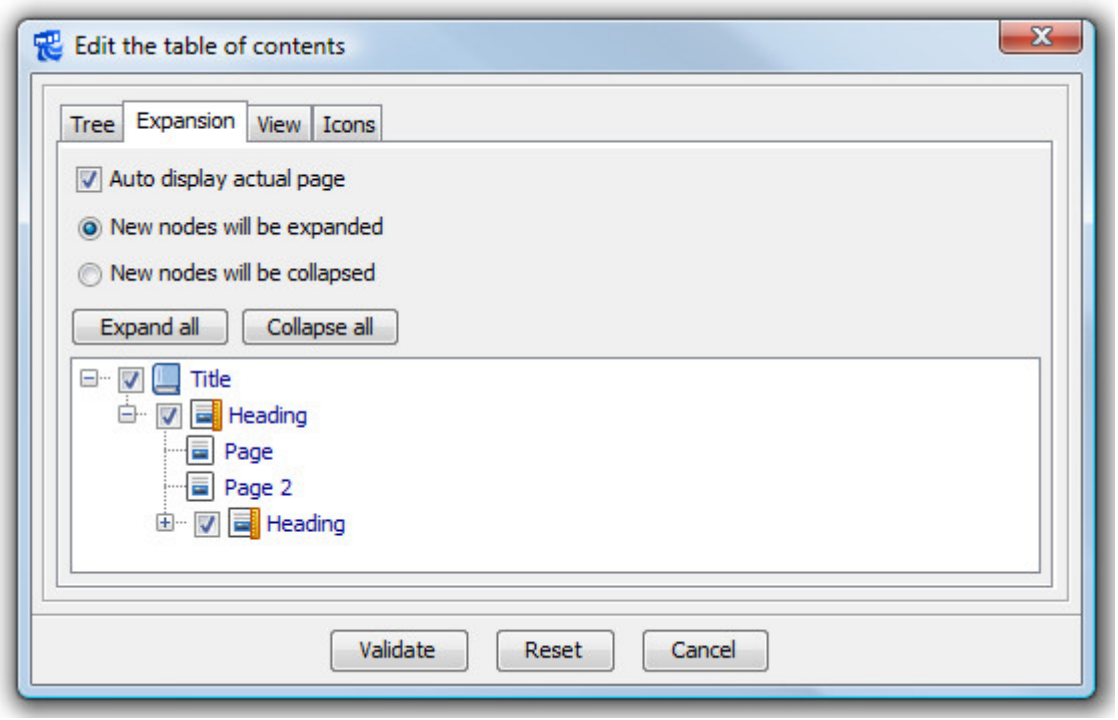
Table of contents editor is divided into 4 tabs: Tree, Expansion, View and Icons.

Tree window: This allows you to select the root tree (the level from where the structure will be shown) and the pages of the Table of contents. Only the selected pages will be shown in the right column of the editor.

We find three selection boxes. By selecting the first one we will decide whether Table of contents root is displayed or not. This option is checked by default.

The other two options are listed under the title Behaviour and they allow us to disable navigation using Table of contents elements in two well defined cases. If we select Disable visited pages nodes, we will not be able to view pages already visited by clicking on its name in the Table of contents (navigation by page browser actions will continue operating). If we select Disable non visited pages node, we will not be able to view pages not visited yet by the Table of contents, so we will only be able to navigate using the Table of contents and view the pages that we have already visited. Please note that if both options have been selected, navigation through Table of contents will be disabled.

Expansion window: This allows you to open an editor that allows you to select the Headings of the Table of contents that will be displayed by default, expanded or collapsed. We can also define that a page will be displayed even if the Heading of the concrete page is collapsed.



View window: It allows us to define Table of contents visualization style.

In the Style zone we can edit the font type of each element in the Table of contents. Elements are grouped in three blocks corresponding to the three states that they may have.

First one is general and displays how elements will be displayed by default.

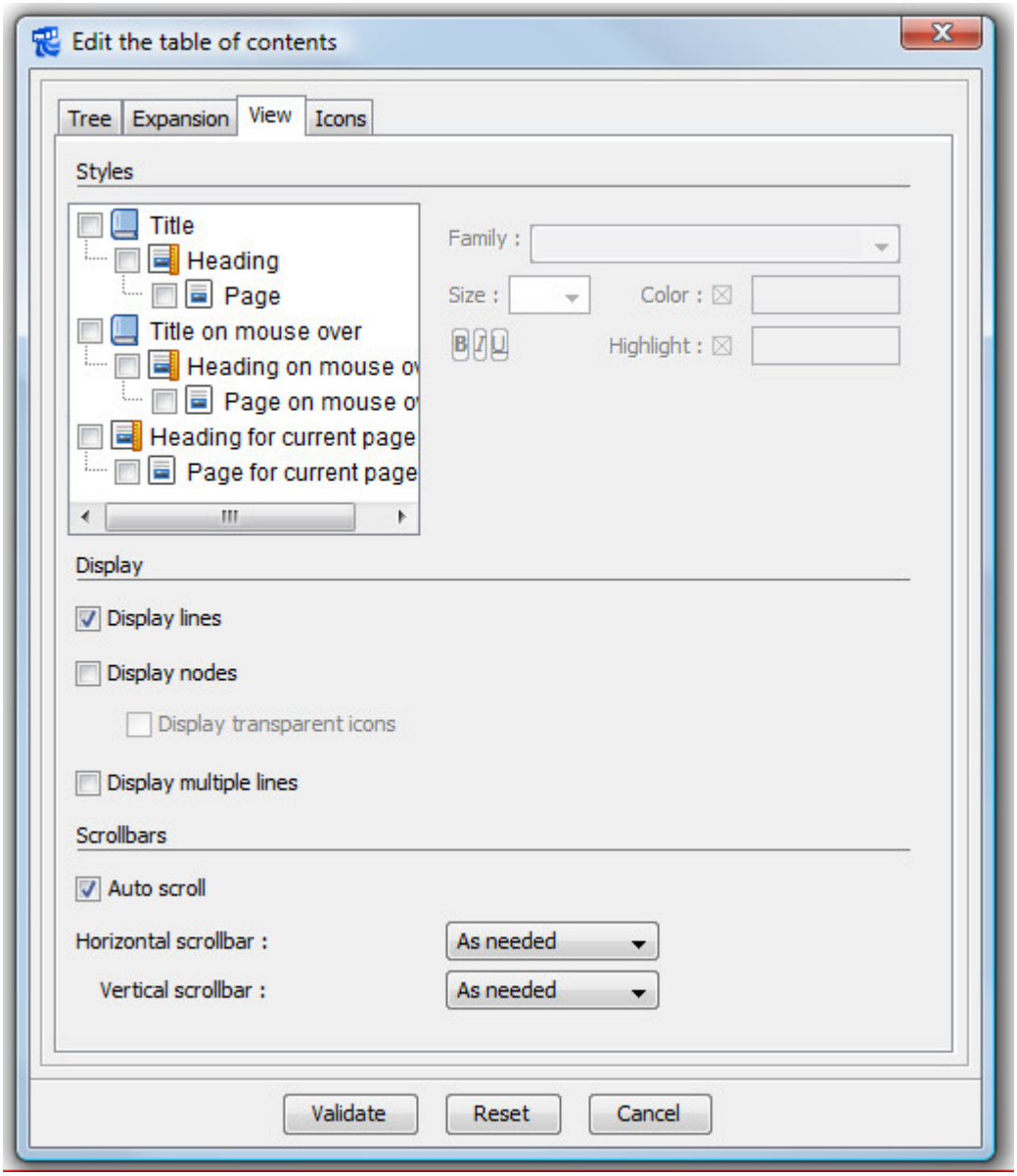
The second displays the way how elements will be displayed when mouse on top (rollover effect).

Third and last is the style that each element will display when we visit that particular page.

Each one of the elements is preceded by a checkbox. To customize an element we must select its corresponding box. If we wish to delete an already defined style and go back to the default style, we only have to uncheck the box.

Styles defined for each element at a higher level, are automatically inherited in lower levels. That is to say that if we customize general view of a page, all styles will be automatically inherited in the current page an in the page on mouse over. If we do not want to inherit these styles, we only have to check the Page selection box i all three different states. Thereby application understands that each style has been customized and unables inheritance.

In the second section of the View tab, we can customize two parameters related to lines and nodes connecting different elements in the Table of Contents.

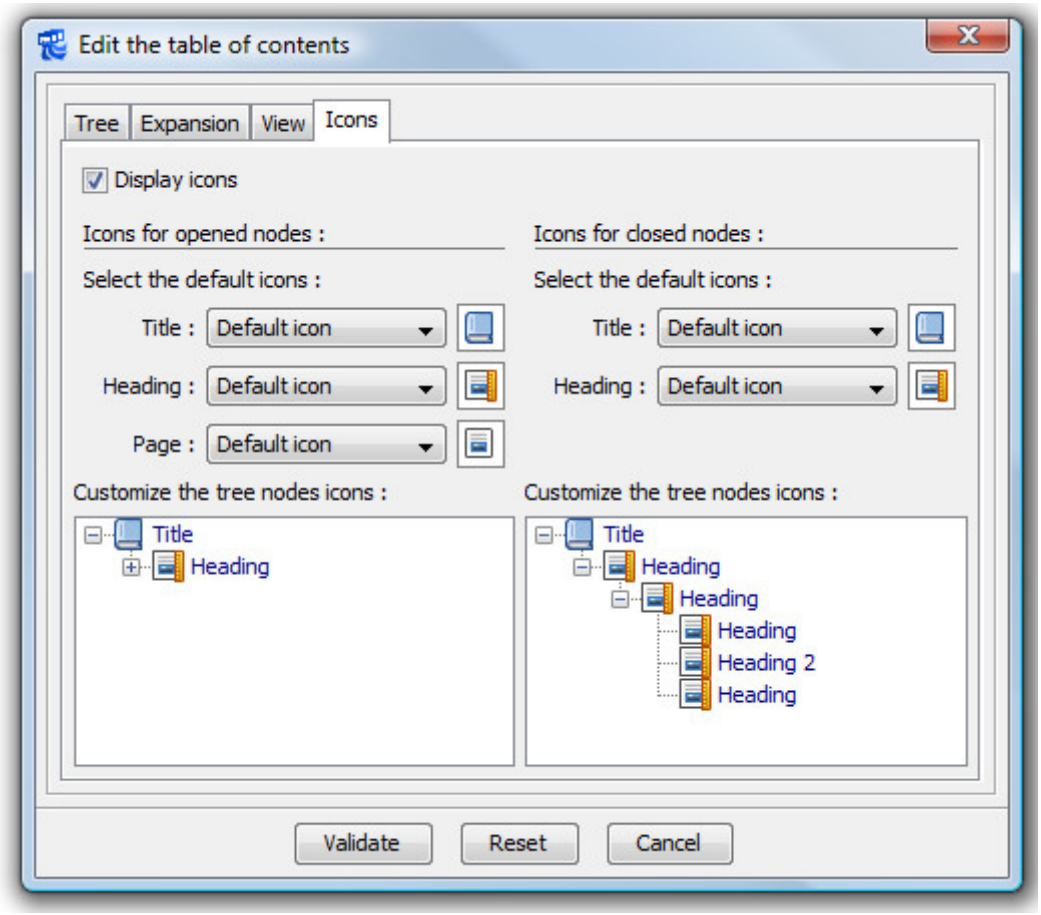


Line visualization: This option is selected by default. It displays all lines that directly connect diferent hierarchy levels in the TOC.

Node visualization: Not selected by default. When activated, it displays symbols [+] or [-] in order to expand or collapse differents hierarchies of the TOC.

Finally we may as well define how will the scrollbar be displayed. By default any scrollbar will appear when needed (when the list in the Table of contents is longer than the predetermined spaced available). That is why vertical and horizontal scrollbars have its options marked as “as needed”. We may customize them defining that any of the bars are shown “always” or “never”.

Icon window: It displays the Icon editor of those Icons that will be displayed in the Table of contents. It allows us to choose the default icons or customize those of Title, Heading and Page.



Icon visualization: Unselected by default. When selected it shows icons corresponding to Title, Heading and Page in the Table of Contents. If we select option Customized icon, a resource manager will open allowing us to choose a new image for it.

Path

This shows the position of the current page in the Title's table of contents. This makes it possible to automatically fill the names of the sections and subsections in which it is included. We can navigate through it, making it very useful when placed in Master pages.

Text orientation: This lets you choose whether to show the path vertically (one element below another) or horizontally (one element next to another).

Separator: It only Works with the horizontal orientation of the text. In this case, you can choose an alphanumeric chain that makes it possible to separate the various path elements for greater clarity (for example you can use a series of blank spaces). This alphanumeric chain is entered in the box on the right.

Alignment: This lets you align the path elements to the left, to the right or centered.

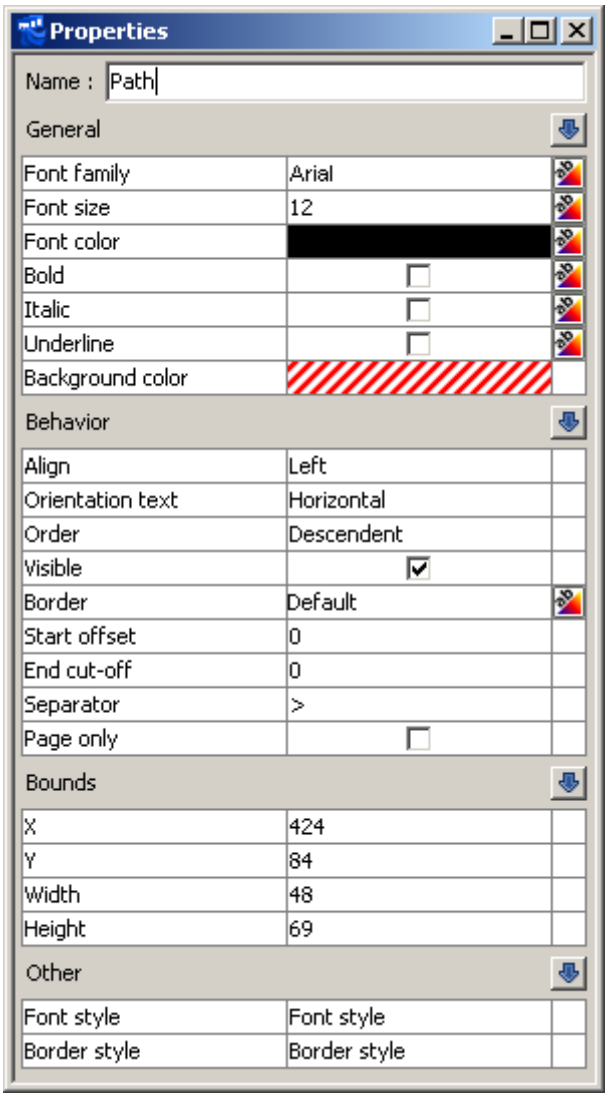
Show page only: Shows only the name of the current page.

Start offset: This lets you set the number of path levels that will not be displayed, starting at the top levels. The default level is 0 (all the path is shown).

Level shown: Allows fixing the number of levels displayed on the path.

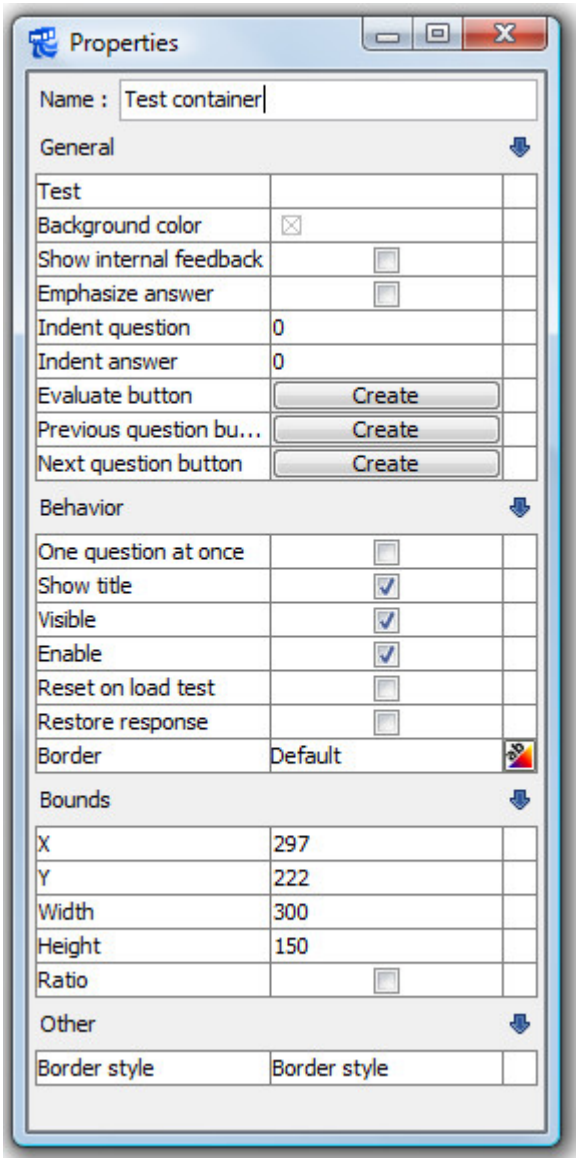
Page only: Deselected by default. It allows to invert the place from where the levels will be shown as selected in the previos property.

End cut off: This lets you set the number of path levels that will not be displayed, starting at the bottom levels. The default level is 0 (all the path is shown).

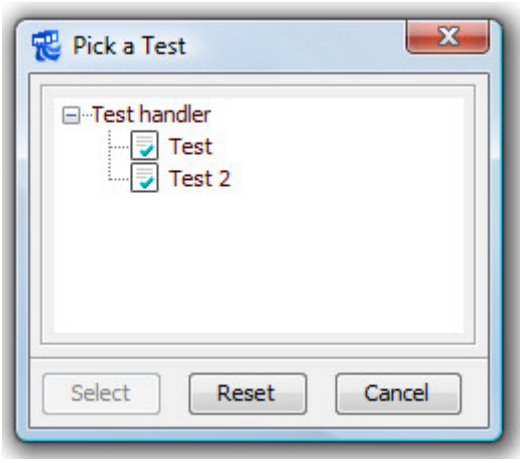


Test container

An area in the page is created once you insert this content element in a page. Then, a test already created will be shown. If you want to see how to create and edit the test you can visit the section 6.5 Tests from this present chapter.



Test: This function open a test selection window where you will find a tree will all the tests of your project. You have to select the desired test and then, click on the Validate button. Test selector can be opened as well from a specific button in the Test editor.

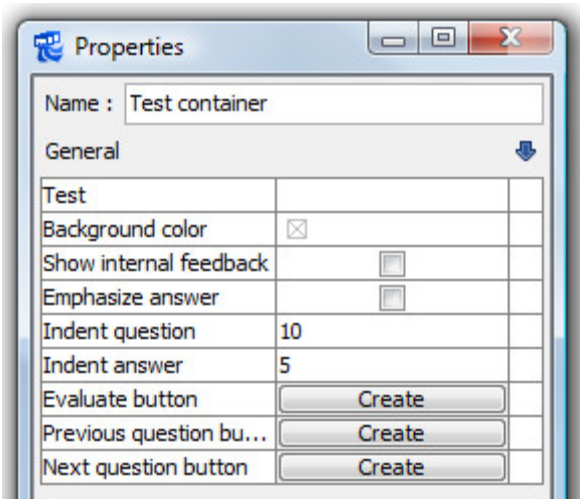


Show internal feedback: This function shows the result of the test in the evaluation process. This is disabled per default because, it is possible to show another customized feedback, if you want, using the content element Test feedback.

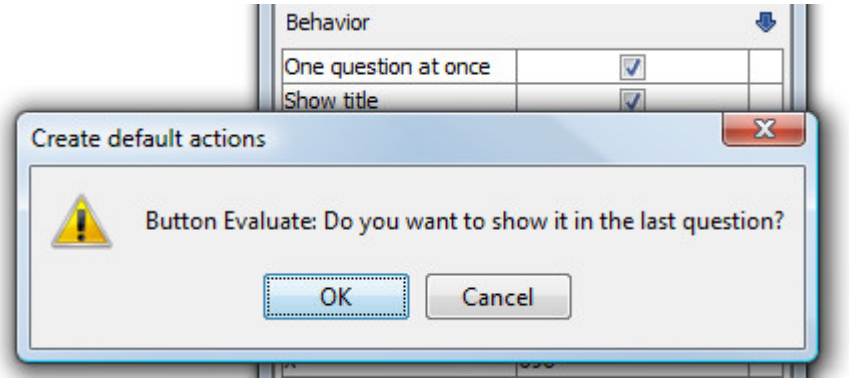
Emphasize answer: This function emphasizes the right and wrong answered questions after evaluation without the need of creating an action

Indent question: Questions are indented as many pixels as we indicate from the rim of the container.

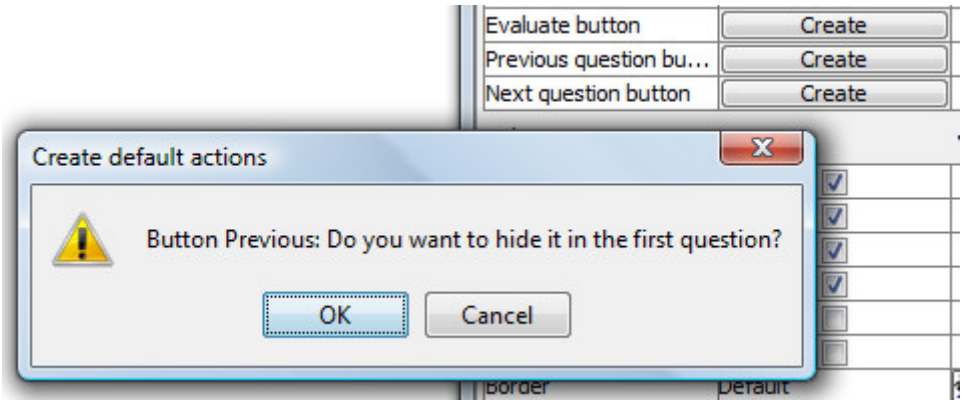
Indent answer: Answers are indented as many pixels as we indicate from the rim of the container. For example, if the indent of the question is 10 and the indent of the answer is 5, answer will actually move 15 pixels.



Evaluate button: This function creates a button with the action “evaluate test”. It is possible to evaluate the test from any interactive element creating the corresponding action. If option One question at once is activated, the program will ask us if we want the Evaluate button to be displayed only in the last question. If we accept it, the button will not appear until the end of the test.



Previous question button: It shows the previous question of the test. This button is very useful if you have selected the property One question at once. You can have the same result from any iinteractive element creating the corresponding action. When placed for the first time, it asks us if we want to hide it in the first question. If we accept, it will only appear whenever there is a previous page to go.



Next question button: It shows the next question of the test. This button is very useful if you have selected the property One question at once. You can have the same result from any interactive element creating the corresponding action. When placed for the first time, it asks us if we want to hide it in the last question. If we accept, it will only appear whenever there is a page after that one to go.

One question at once: Questions are shown one by one. If you want to go to another question, you will have to create buttons indicating the action “next question”.

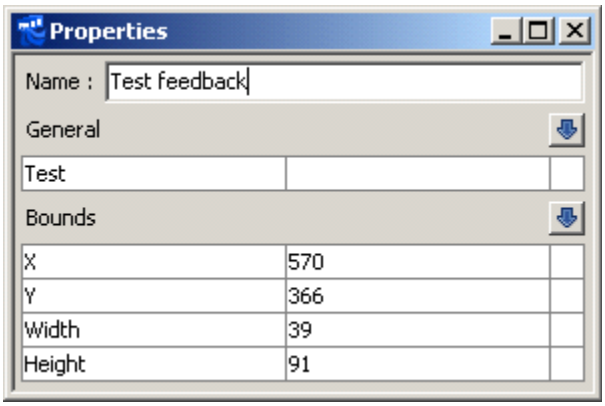
Show title: It allows you to show the title of the test before the questions.

Reset on load test: If we reload the page, all previously obtained values are cleared so we can take the test from scratch again.

Test feedback

An area in the page is created once you insert this content element in a page. Then, the result of a test, previously created, will be shown. If you want to see how to create and edit the test you can visit the section 6.5 Tests from this present chapter.

Altought it is possible to use the internal feedback of the test, this element let you putt the feedback wherever you want within the page. To do so, you have to link this feedback with a test using the Test property, that works as in the Test container. It is also possible to open the Test selector by double clicking on its element in the page.



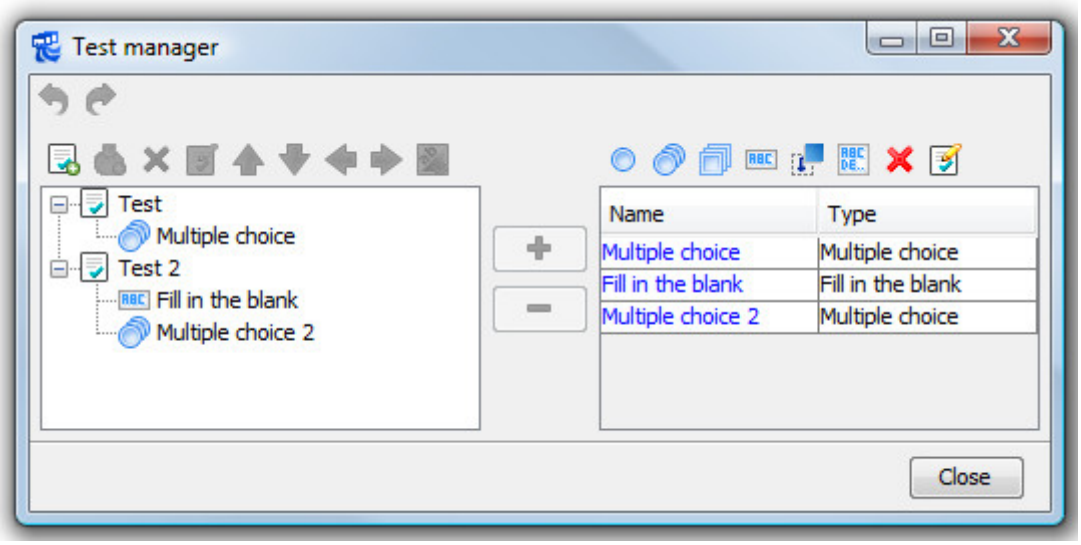
6.5 Tests

Tests are one of the main EasyProf®'s elements that allows you to create self-evaluable educational contents. It is worth metioning that before, introducing them in a page, thanks to the content elements Test container and Test feedback, you have to create them and edit them. To do so, you can use the the Test manager.

Test manager

A test manager has been created, which allows us to manage all the tests in an organized way. In this sense, we are talking about the same already mentioned above philosophy as the "resources manager". Test manager is created for managing more efficiently big projects.

This option is available in the menú Window > Test editor or using the corresponding button from the Toolbar.



The Test manager comprises two sections in the shape of two columns. Left column allows us creating and editing various types of tests in the project. The one on the right gives us the chance to create questions. Such questions may be edited using last button on the list of questions.

In order to create a test you will use the button New test from the left column. You can create as many tests as you need using the same button. For editing the test's properties you should select it and then, click on the button Edit test. The properties windows of the test will appear where we can define the following issues:

Text: It allows you to edit the title of the test.

Max attempts: It defines the number of attemps that the user will have in order to complete the test. Per default, is one. It means that, you cannot repeat the evaluated test (even it is failed).

Total score: It defines the maxim score of the test. Per default is 100.

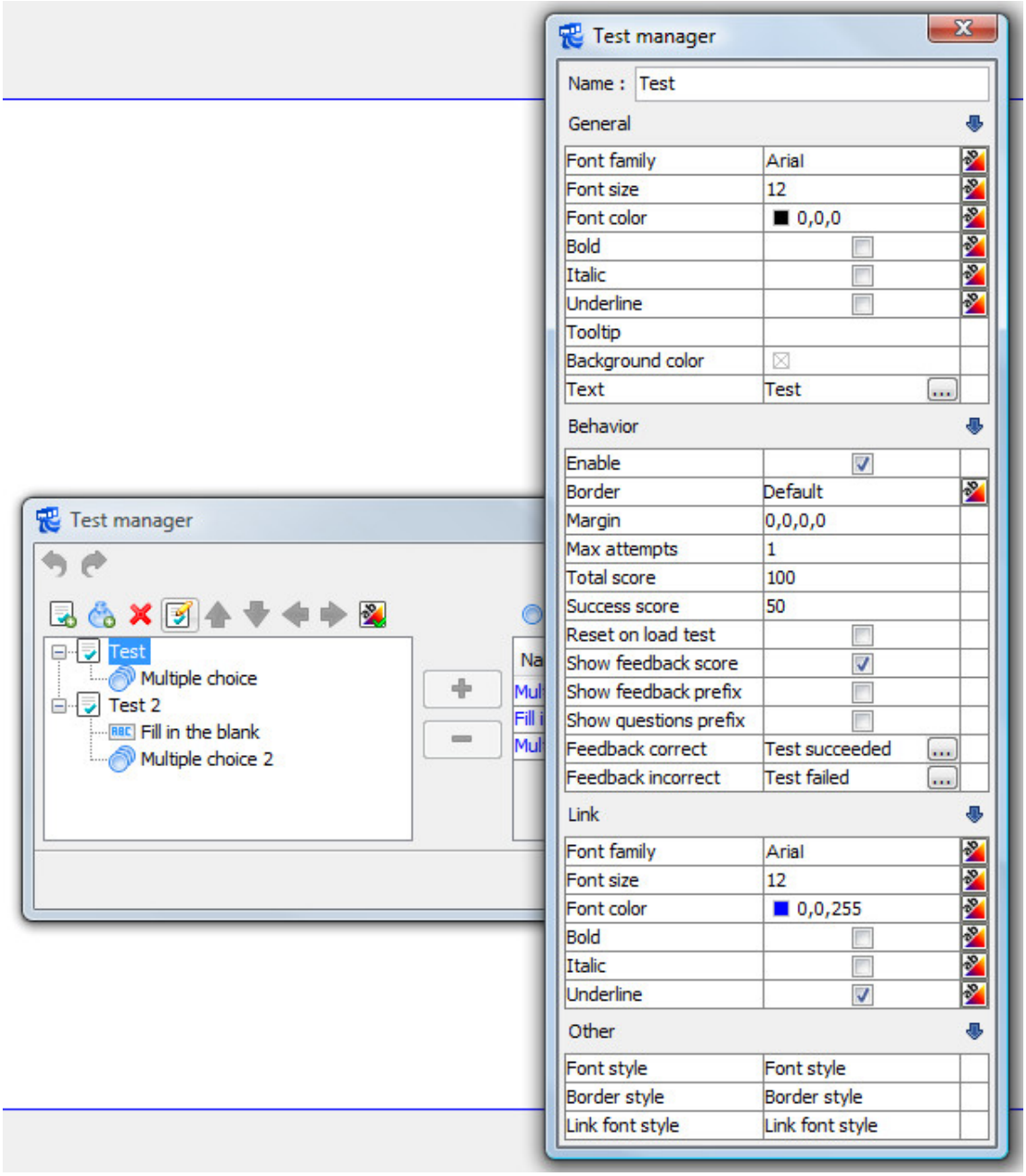
Success score: It defines the minimum punctuation in order to pass the test. Per default is 50.

Reset on load test: Clears all values and tries in a test when reloading the page (it is also possible to reload the page using actions).

Show feedback score: If you select this option, not only will you see the the feedback of the test but also, the total score obtained.

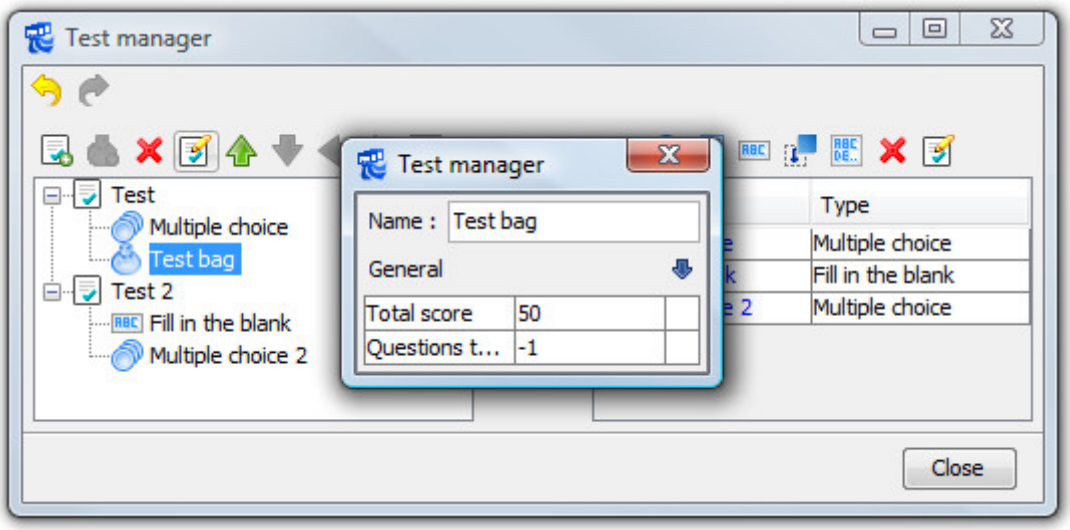
Feedback correct: This option allows you to define the correct feedback for the test.

Feedback incorrect: This option allows you to define the incorrect feedback for the test.



Test manager allows you to create Bag questions. Bags are an interesting option specially designed for tests that can be used several times. You can include as many questions as you want in the bag but, only a defined number will be shown by the editor.

Questions are randomly choosen everytime the project is loaded. If you press the button Edit test, bag properties will appear. You can define the total score of the bag and the number of questions that will be shown.



Once you have created the tests and the bags; defined the global scores and the feedback, we are ready for assigning the questions. You can use the right column in order to assign them.

Question's edition

In a test we can incorporate five types of questions:

True/false: there are only two possible answers and only one of them is correct.

Example: Alberta is a city in France.

a) True

b) False

(Answer: False)

Multiple choice: the number of possible answers can be two or more, with only one of them being correct.

Example: Which of the following animals is an amphibian?

a) The shark.

b) The elephant.

c) The rat.

d) The frog.

(Answer: The frog).

Multiple response: this can have more than one correct answer from among several possible options.

Example: Which of the next terms indicate a cloud type?

a) Cumulus.

b) Tripod.

c) Mandrake.

d) Cirrus.

(Answers: Cumulus and Cirrus).

Fill in the blank: Students are allowed to enter the answer in a blank space, as well as selecting one from a list of options. User can type text before and after the empty space as part of an statement. Answer will be correct if it matches any of those included in a list of correct answers defined by user.

> Example: Complete the next sentence: “Though I was not a quiet and obedient son, my two ____ had a lot of patient with me”.
>
> (Answer: “parents”). In this case, the list of correct answers would be formed only by one word.

Drag & Drop: It allows us to create interactive and evaluable games. Correct answer will happen when we drag an object to its correct location.

> Example: Relate following words of the list with the images they represent.
>
> (Answer:Words should be dragged to their correct location under each picture.)

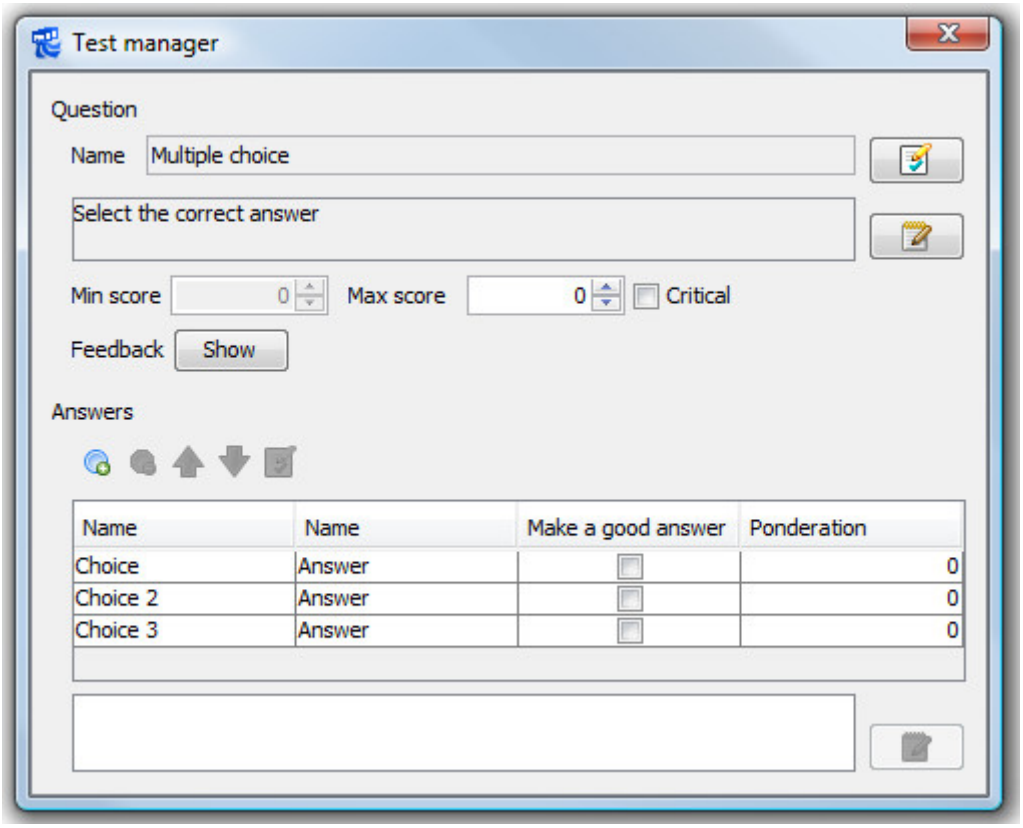
Open essay question: this allows essay-type questions; with this type long answers can be entered.

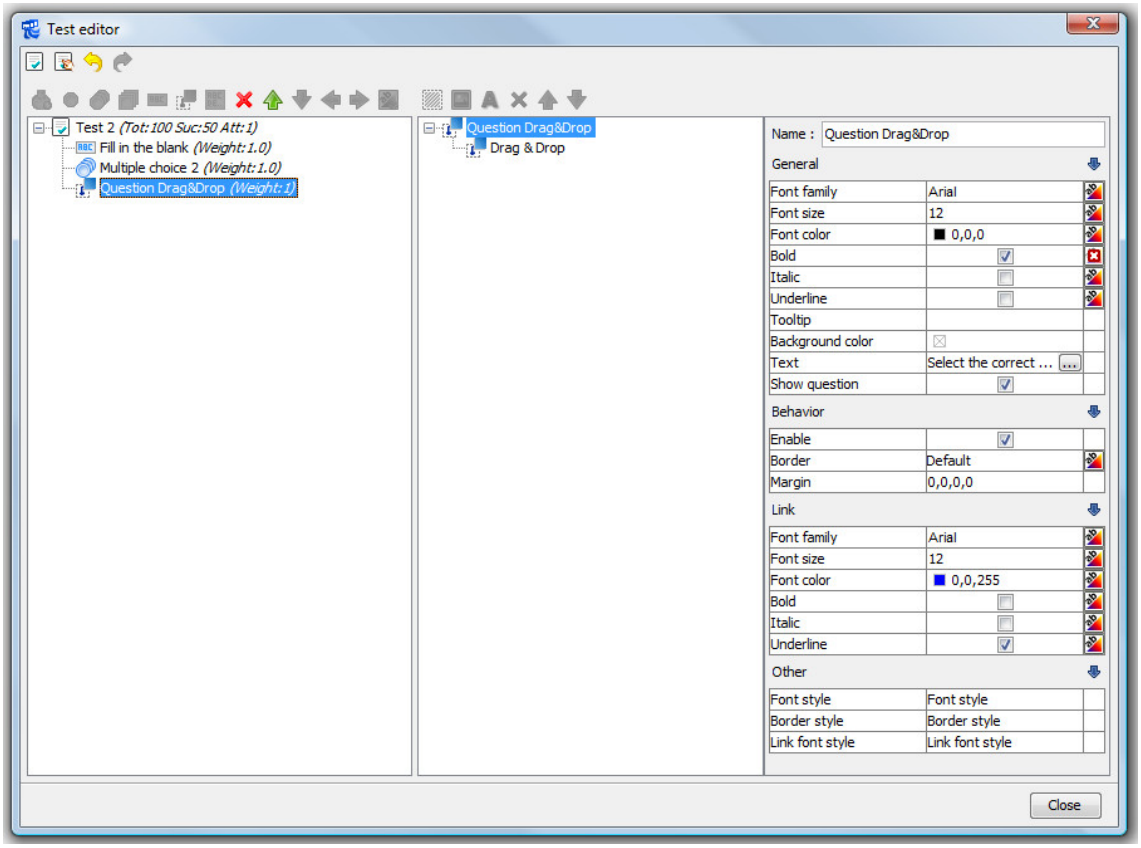
> Example: Say what do you know about e-learning.

For edition the questions you only have to click on the corresponding buttons placed in the central column. To edit a question we must only select it and click on button Edit question.

Questions properties

Questions properties are likely to elements of contents properties. Each question type has its own properties, although some general properties are common to several types of questions. In the case of Open essay question, Fill in the blank and Drag & drop, these properties are visible in the editor itself. On the other hand, questions where it is necessary to check an answer (True / false and Multiple response) we use a specific editor and we must click on Edit button right beside each question.





Text: it allows you to open the Rich text editor ant to write question

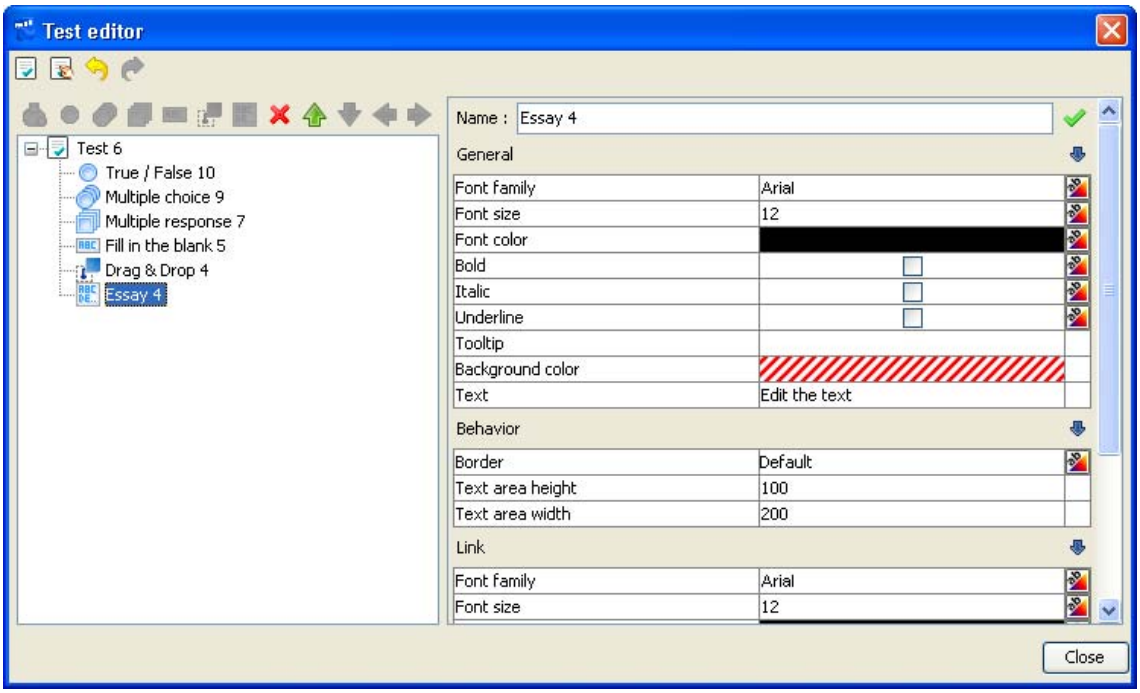
Critical: if it is visible, it means that you have to answer correctly to manage the test, if you fail at a critical question: the test will be delayed, independently of your score.

Weight: number which can give us the weight of one question with the entire score. One point for one question by default settings. For instance, if a two points question is answered correctly, the value will be double. Easyprof® runs automatically questions weights and links them with the entire value of the test. In this way, if a test has an entire score of 100 with four questions of 1 point, the system will give 25 points at each question.

Feedback correct: opens a rich text editor to define the message that will be shown if the question is right answered.

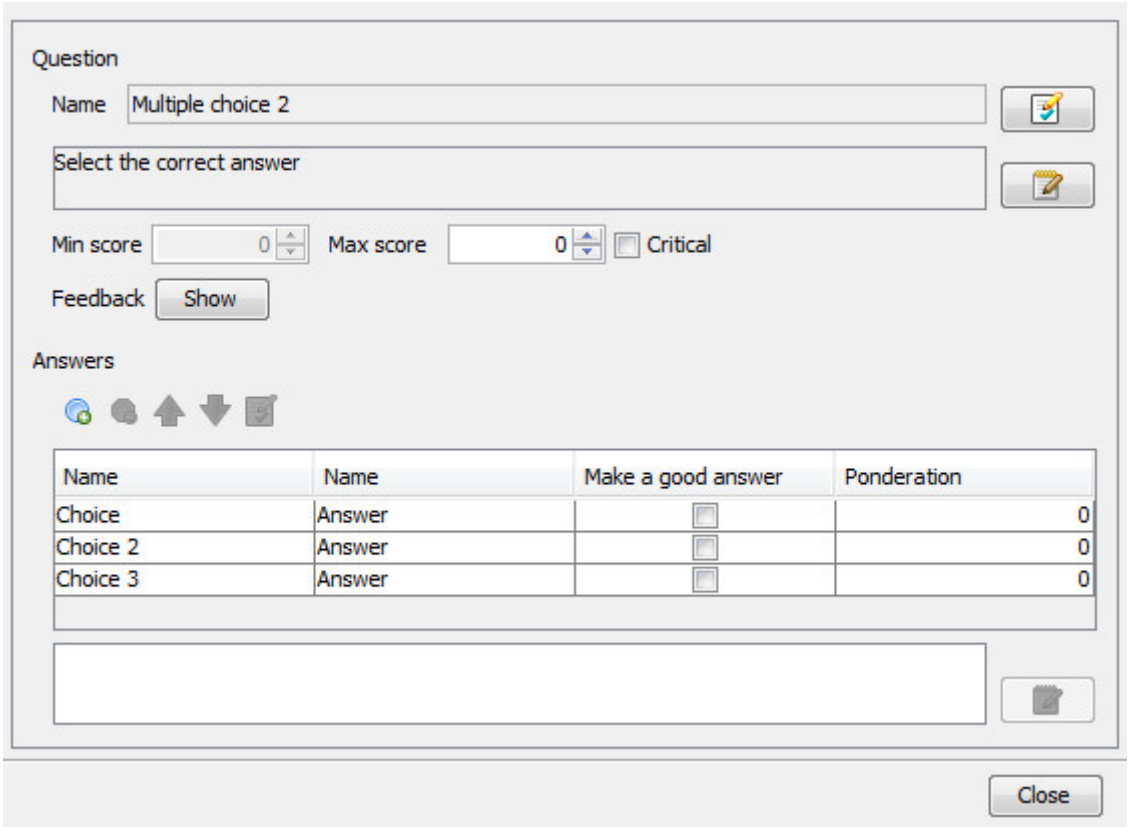
Feedback incorrect: opens a rich text editor to define the message that will be shown if a question is wrong answered.

The essay question has specifics properties to define the width and the height in the field answer. On the other hand Drag & Drop, has others specifics properties which will be studied later.



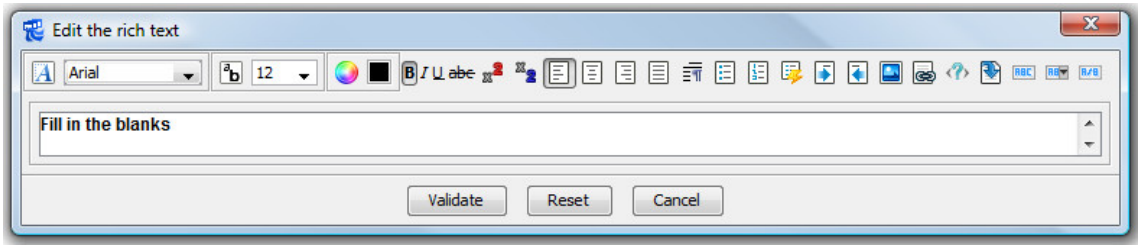
Answers edition in choice questions

Once the properties edited, we have to do the same work with the answers. To do so, we will use a very specific editor that is exactly the same for all three type of choice questions.



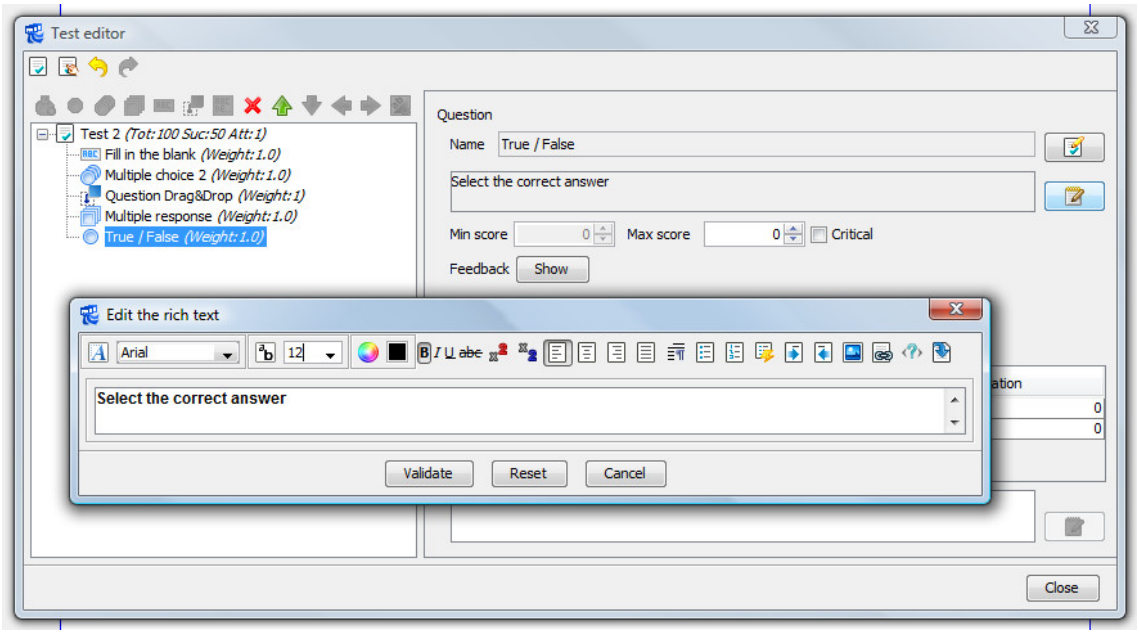
In first place we find a name to identify the question. To its right a button te edit the general properties.

After that we find the actual text of the question. To edit we must click the button to the right of the Text field. A text editor will appear with all usual available style options as bold, align, links or even variables.



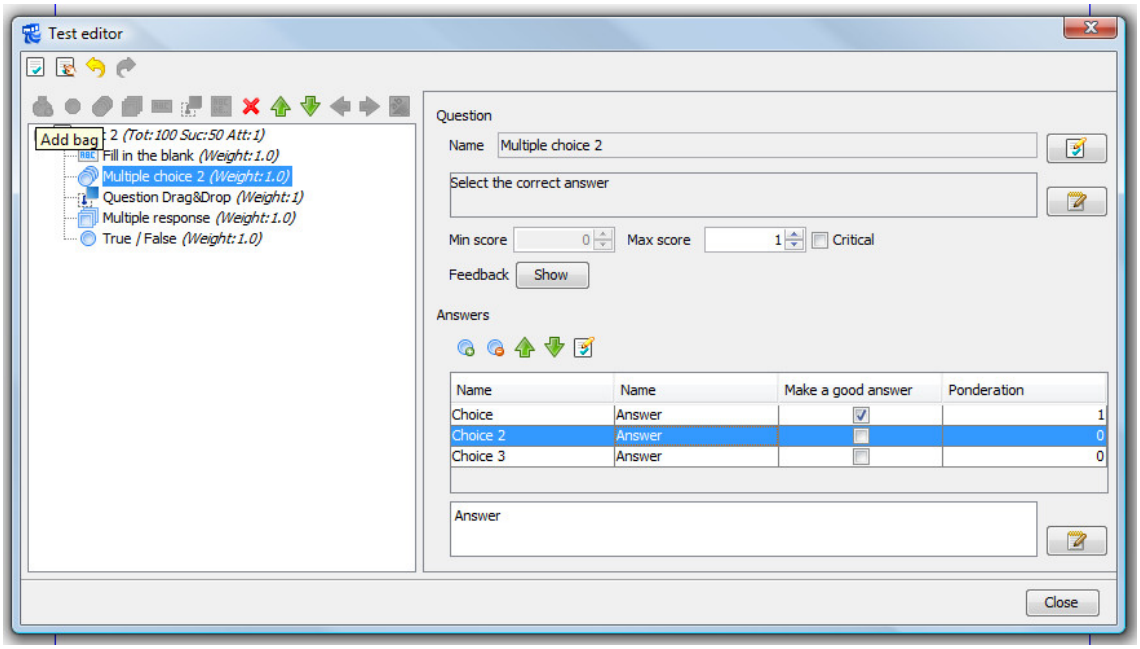
Once all that is done, we can configure minimum and maximum value of a question, and its weight in the test. By default, weight is 1 and minimum and maximum values are automatically adjusted according to the ponderation we give to each question. We can define a question as critical, meaning that having that correct is essential to pass the test.

By clicking on button Feedback we can customize the information we will give student back as a feedback of the question depending on whether he has passed or not the question.



Two Text field will appear, one for positive feedback and a second for negative feedback. To edit them we have to use button Edit text that will open the default editor. We can also use here bold and variables.

Finally, we can customize answers and decide which are correct and assign them a value in the question.



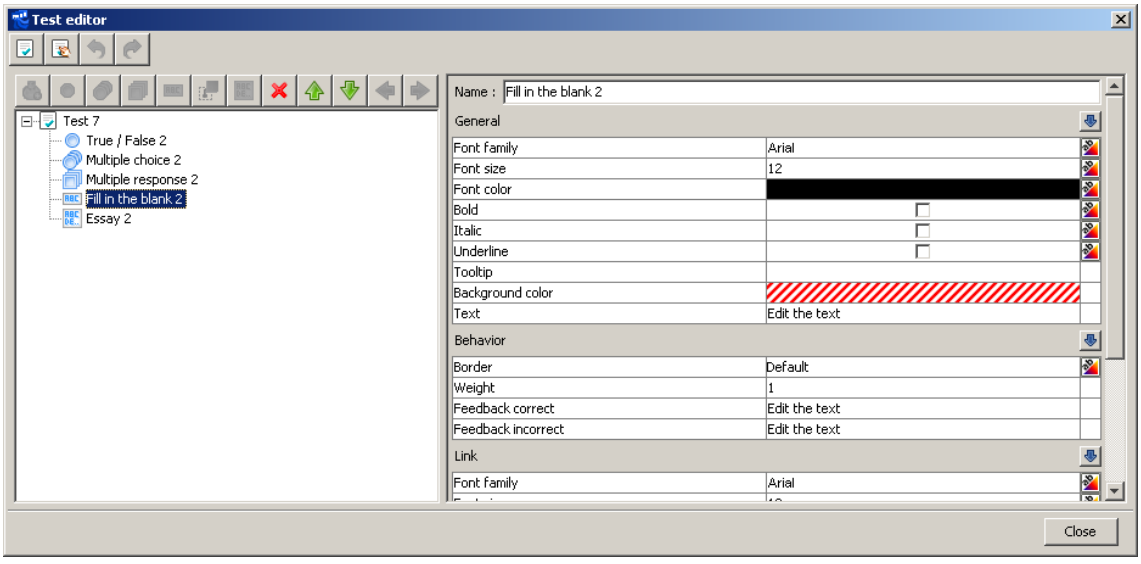
Located on top of an answer we can see the text in the bottom part of the screen and edit it clicking on button at the right of the box. Next to each question there are two boxes. Selecting the first one we indicate that the answer is correct. In the second box we add the ponderation of each question, no matter if they are correct or wrong.

On top of the answers appear several buttons. First buttons add or delete answers (this option is not available in True / False questions). After these buttons, we find arrows that allow us to move up or down questions to moify its order. Finally we can access the answer properties.

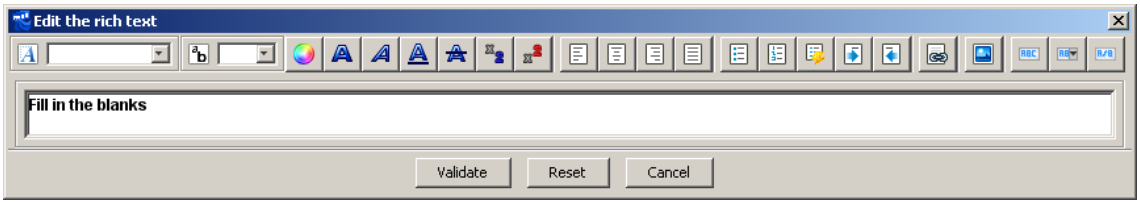
Fill in the blank

This kind of question is very useful and has specific properties.

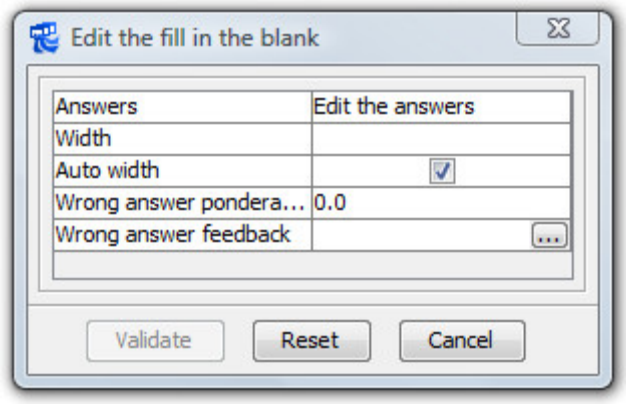
When you click on the property text, the text editor opens with three characteristics located in the right corner of the upper menu.



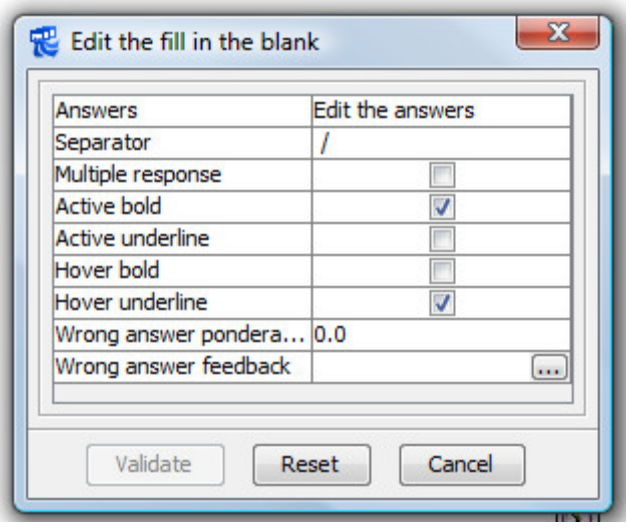
Text field: It allows you to create an empty Text field (gap) that student will have to fill. Answer will be correct if it matches the options provided by the author. These may be several and with different ponderations.



Drop down menu: In this case a menu with different options provided by the author will be displayed. There may be more than one correct answer with different ponderations.

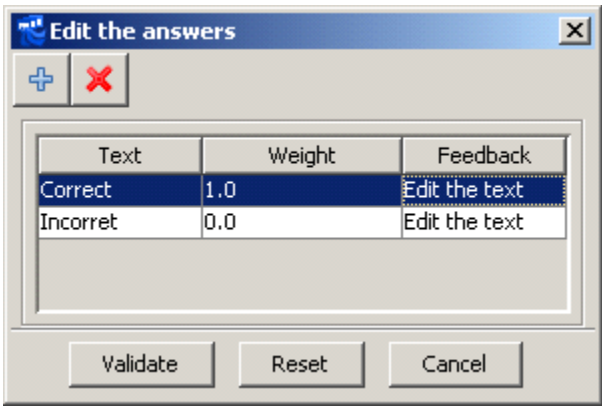


On the bounce: A list of words appear. User has to click on the one that he considers correct. There may be also more than one correct answer and with different ponderations.



If you click on “Edit the answers”, a specific properties editor is shown where we can customize the different options.

Edit the answers: This is an editor where you are able to introduce as many answers as you want thanks to the button Add [+]. You can also add a weight if you want, and a diferent feedback for each answer.



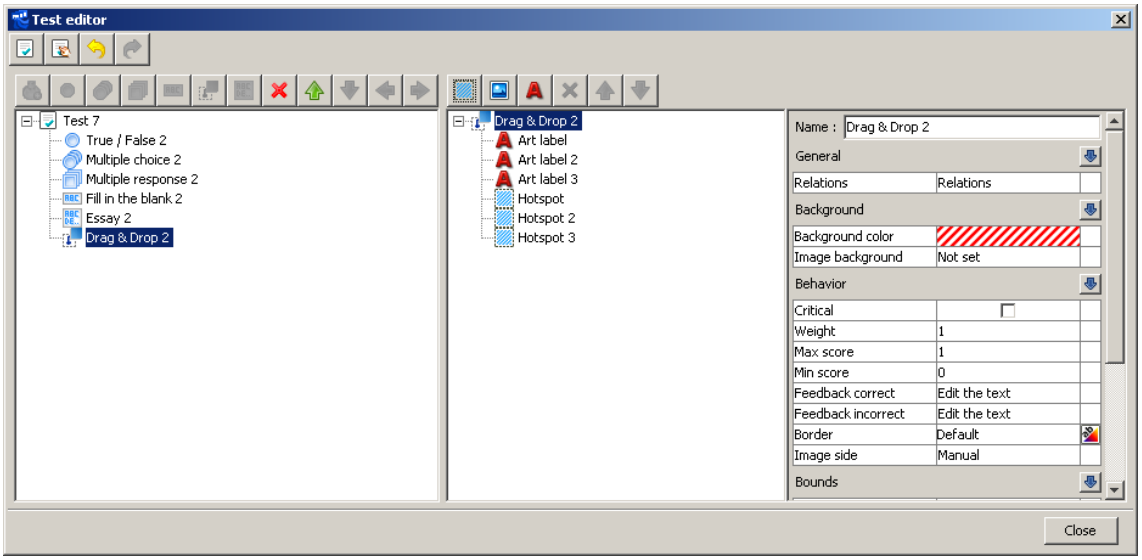
In the option Text field you can define the widht of the characters or select the auto width option. We may define a ponderation and a feedback for all unanticipated answerws (and therefore incorrect) an define if we take into account the use of upper or lower case to mark an answer as correct.

In the option On the bounce, you can select a symbol to be used as separator of possible answers as well as different effects for the proposed words.

Drag & Drop

Drag and Drop questions are especially interesting, as they let us create interactive games that can be evaluated. This test has specific properties that make it different than other assessments.

The main difference is that instead of having answers, Drag & Drop has got some elements which can be dragged and target zones. In order to create them we will use some buttons located on the properties editor, in the right-hand side column.

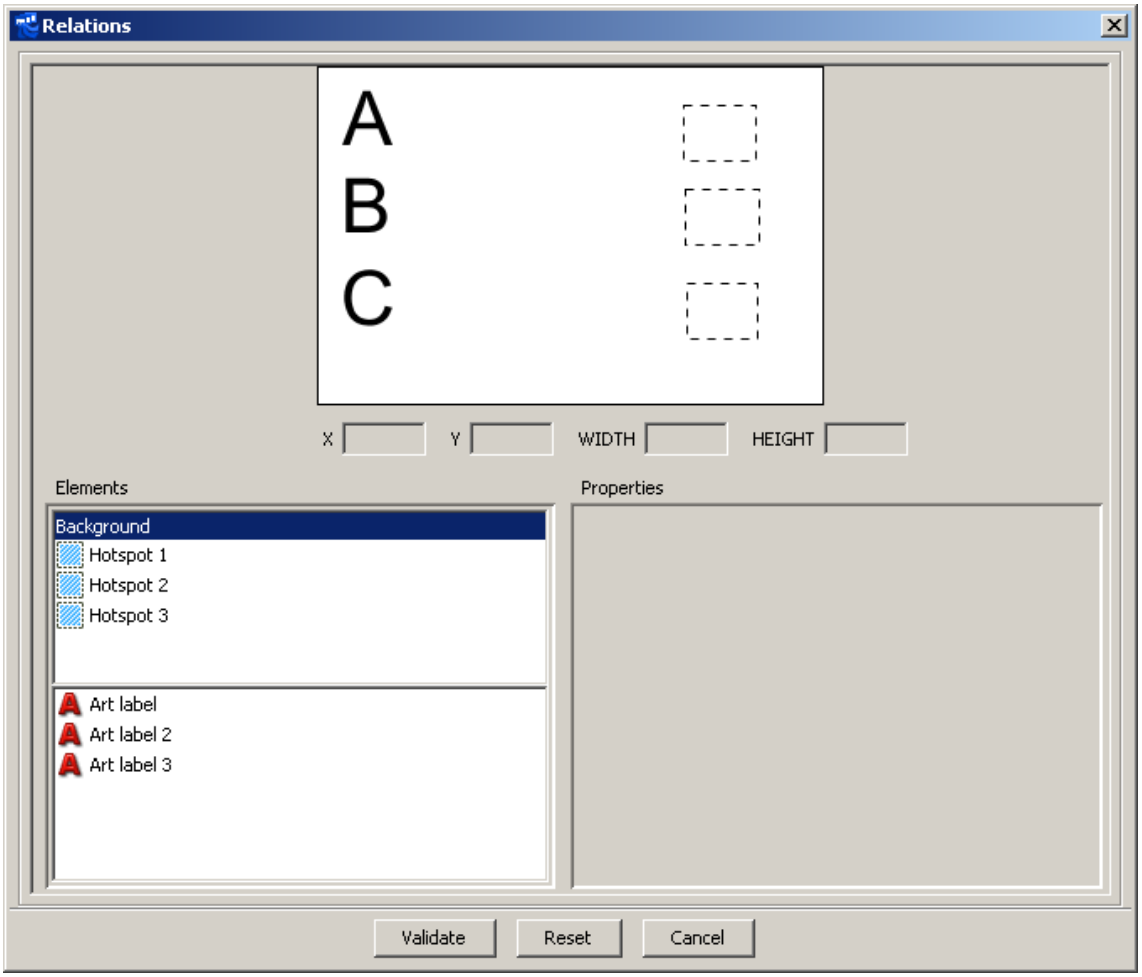


The target zone properties are very similar to the Hot Spot Content Element ones but unlike them they are not used in order to generate actions but to mark the correct location of a draggable element. The draggable elements can be images or labels and their properties are the same than the content element ones. Therefore, we will have to select the origin of the resource manager images and we will have to

define the label text. We will be able to edit this text as many times as we want before definitely generating the course. It is possible to incorporate as many target zones and draggable elements as we want.

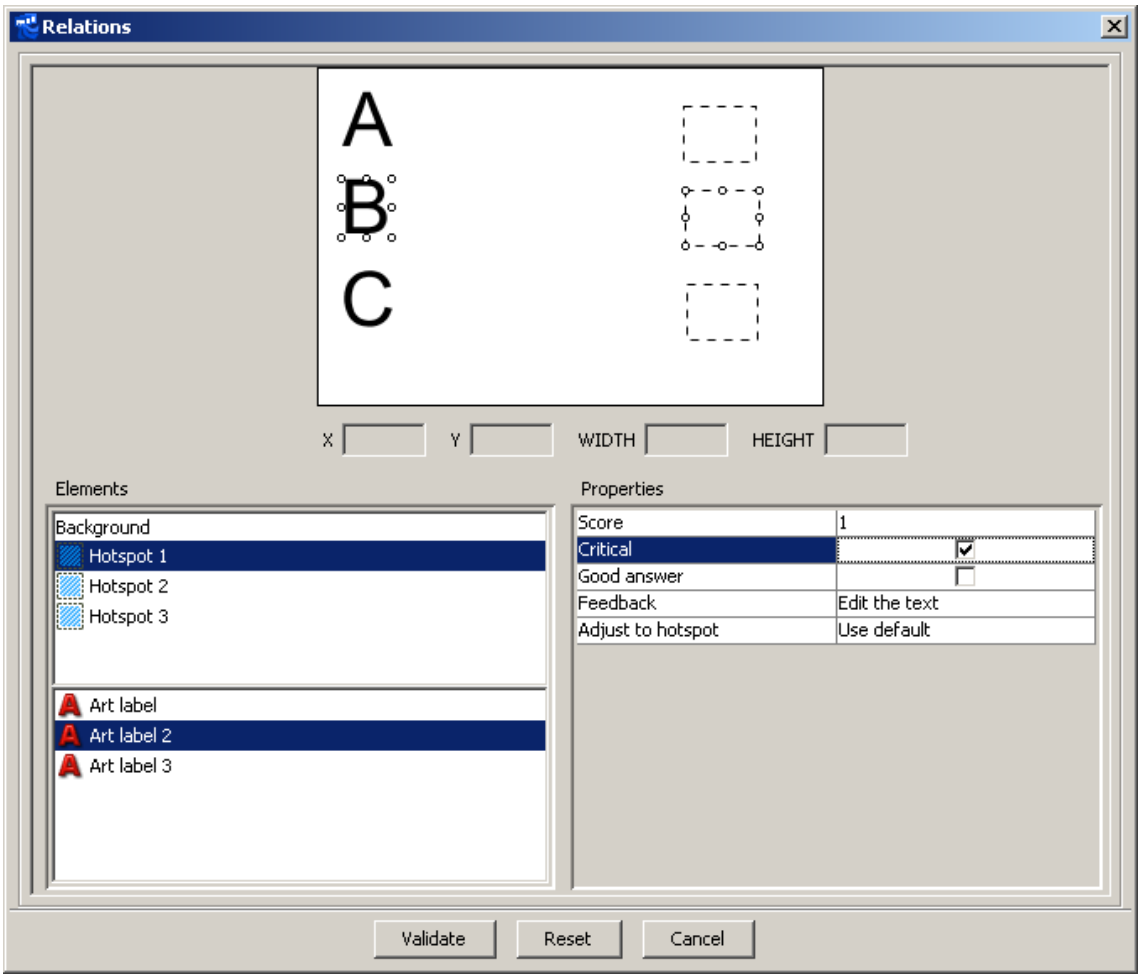
Once those elements are defined we will proceed to edit the Drag&Drop properties.

Relations: it opens a graphic editor that allows us configuring the most important aspects of the Drag & Drop, as the elements location and their relations.



It shows a screen of the size in which we have defined the Drag & Drop, with all the elements it contains. We can define the location of the elements by dragging them with the pointer, or through XY coordinates.

In the bottom of the screen we can see two columns: on the left-hand side are shown all the elements. When selecting a draggable element and a target zone the relation properties are shown in the right-hand side column:



Score: allows us assigning a score, positive or negative, to this relation.

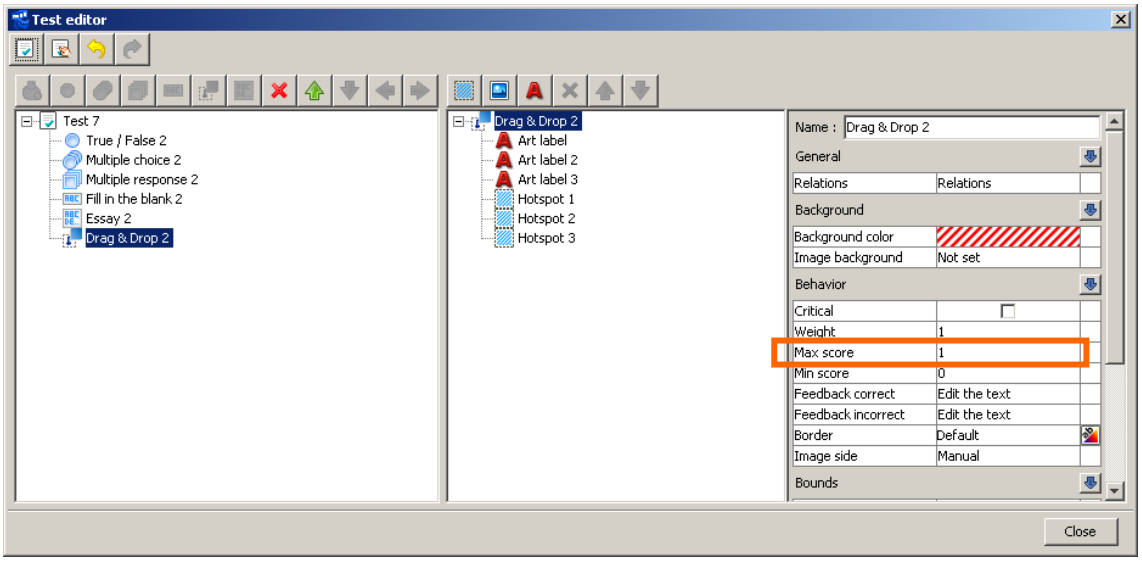
Critical: when selected, the exercise will not be considered correct is the answer has not been correct.

Correct answer: indicates that the relation is correct, independently from the score conceded to the relation. This option is important if afterwards we define several possible tries and elements that are not in the correct target came back to their original location in order to try it again.

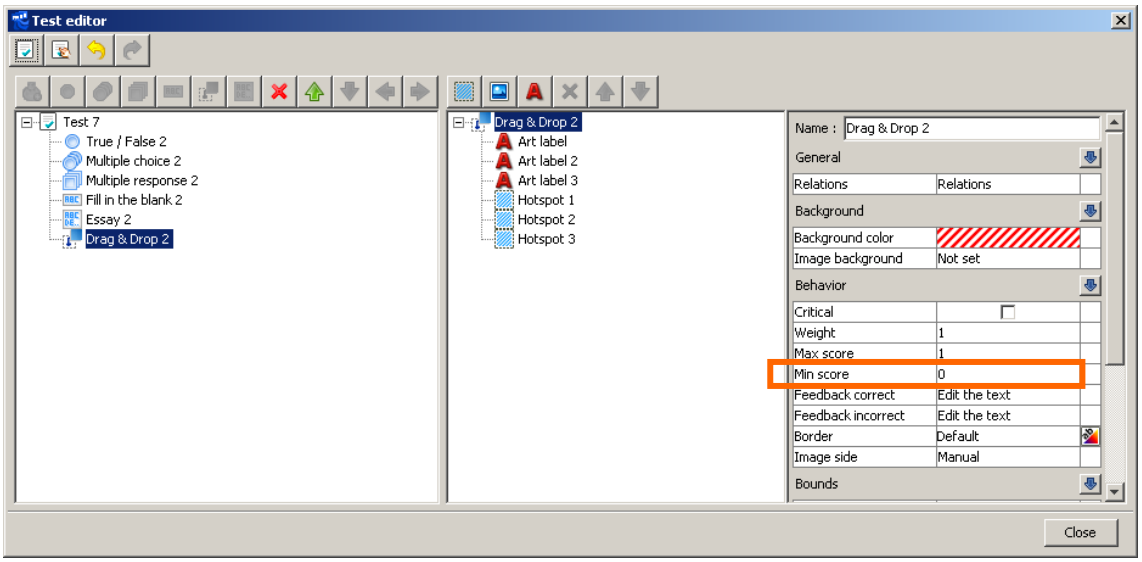
Feedback: permits a customization for this relation.

Adjust hot spot: allows selecting the way in which the draggable element will adapt to the target area when we drop it.

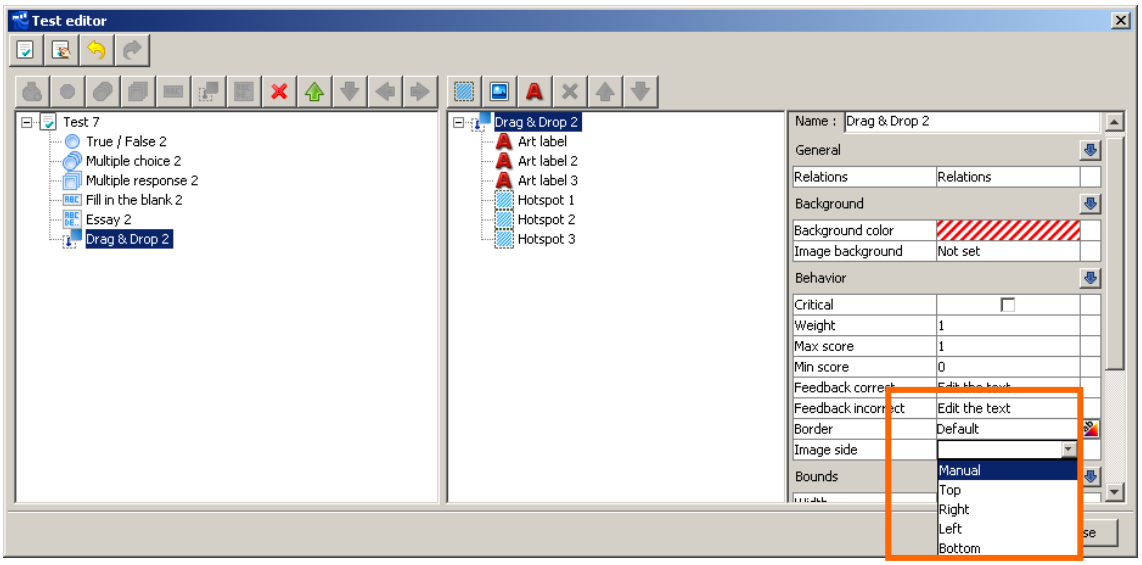
Maximum score: Permits defining the maximum score that can be obtained with the exercise.



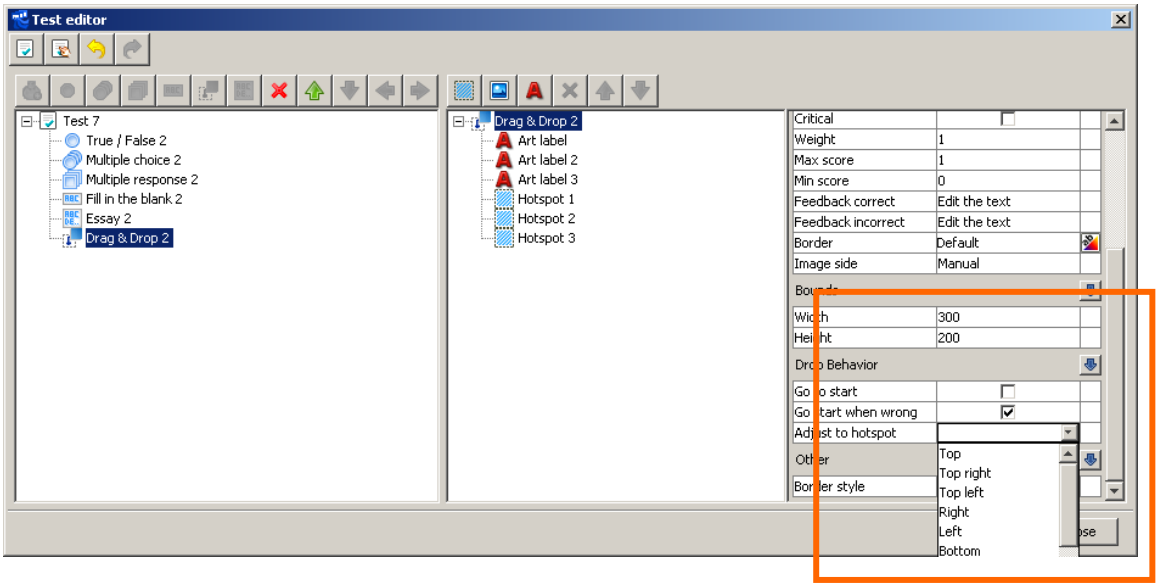
Minimum Score: Permits defining the minimum score in order to pass the exercise.



Draggable objects position: by default they are located manually. They can be automatically located in the upper or inferior part of the screen, o the right or on the left.

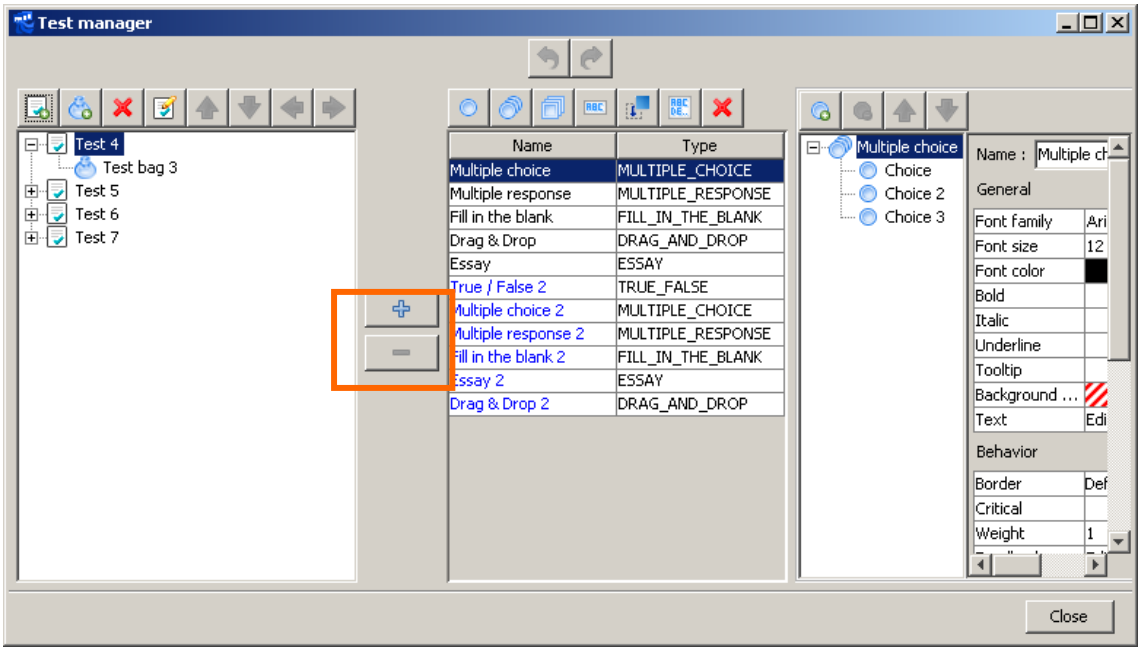


Dragging behavior: permits us choosing what will happen with the draggable object once we drop it on the target area. We can decide that it comes back to its original position if the relation is not correct, and we can also determine the way it will adjust itself to the target.



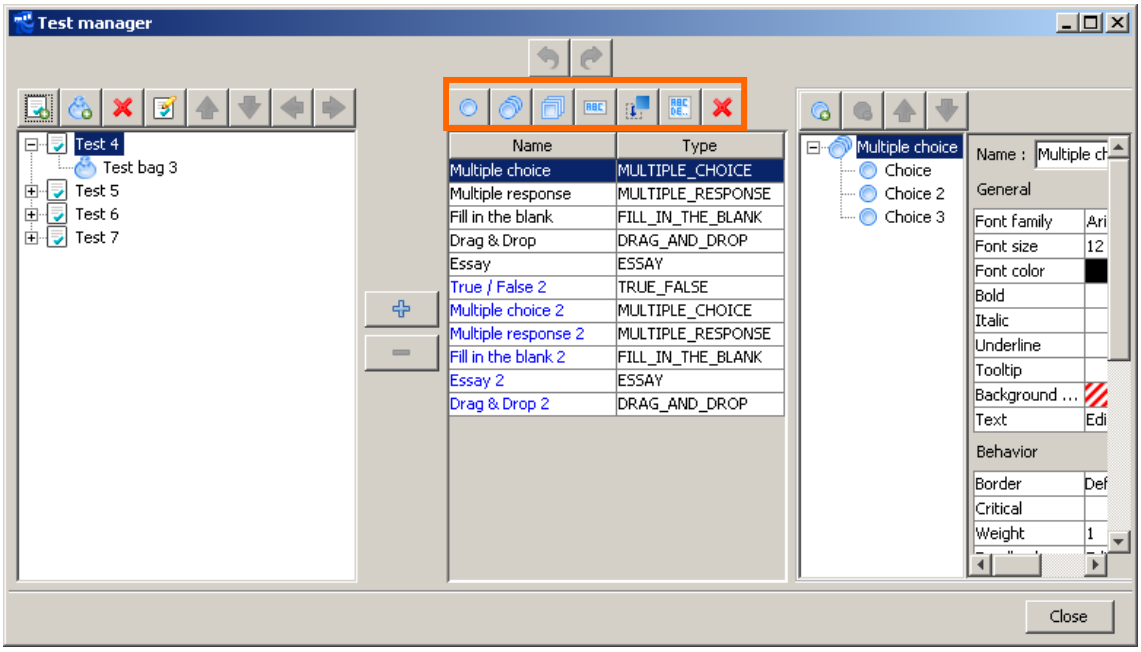
Assign questions to a test

Once questions and their properties are defined we just have to assign them to the tests. For that purpose, we will select the test or the bag we want in the left-hand side column and will be the selecting the questions in the column of the center. In order to assign the question you just have to click on the [+] button located in between both columns. The question assigned to a test will stand out in a blue color. If we want to remove a question from a test, we have to select it in the left-hand side column and click on the [-] button. The question will show again itself in the original black color.



We can change the order of questions that are already assigned to a test through the arrows located on the upper side of the column, We will use the arrows up and down in order to change the order or go from a test to another one, and the right and left arrows in order to include or extract them of a bag.

If we committed a mistake when editing a property we can use the undo-redo arrows in the upper-middle side of the Test Manager.



The QTI specification:

The Test Content Element is compliant with the Instructional Management Systems Global Learning Consortium (IMS) Question & Test Interoperability (QTI) specification. QTI or specification on test and question interoperability describes the basic structure of the question representation and essay data, allowing its exchange between several platforms and systems.

QTI specification is defined XML. That means that the evaluation Test content element generates itselfapplications.

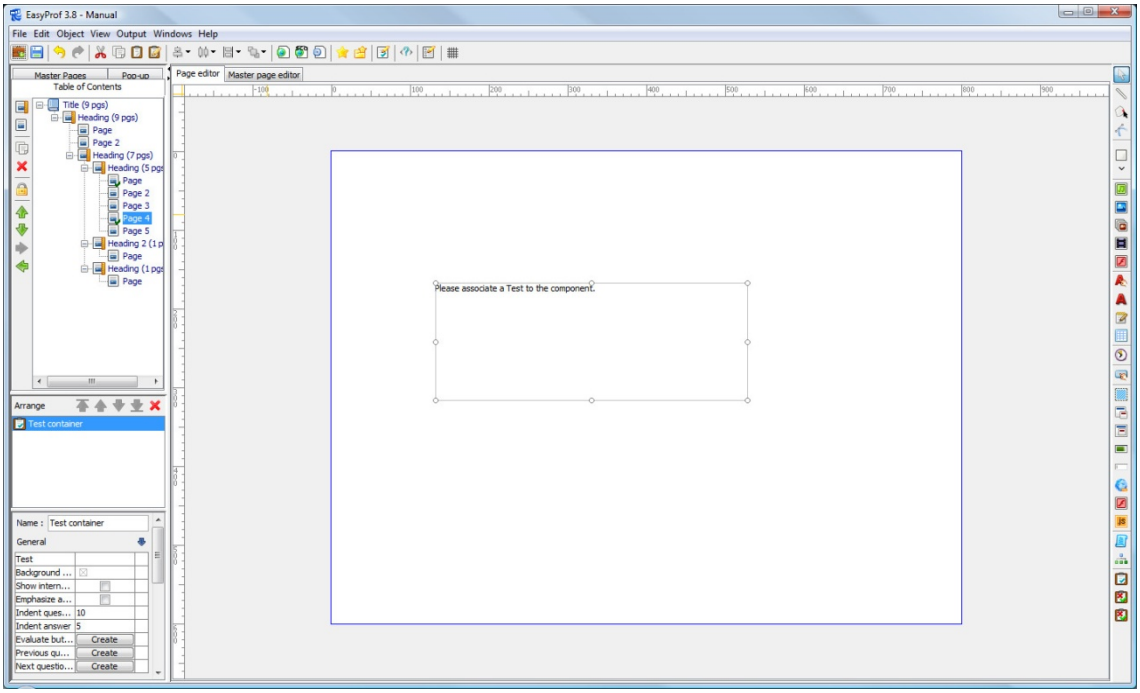
An important concept belonging to QTI is the questions bag, containers from which questions are randomly extracted in order to allow producing different tests for each final user. EasyProf® includes bags in it test as see previously.

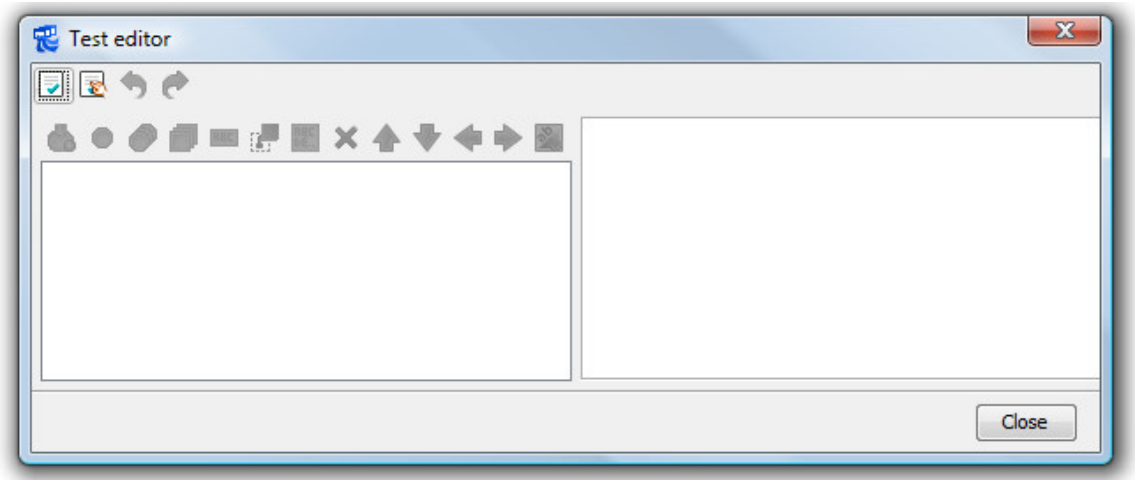
6.6. THE TEXT SCORE

First of all, it is important to mention some previous concepts before we look in detail the test scores in EasyProf® 3.

6.6.1 Test container and Test Editor

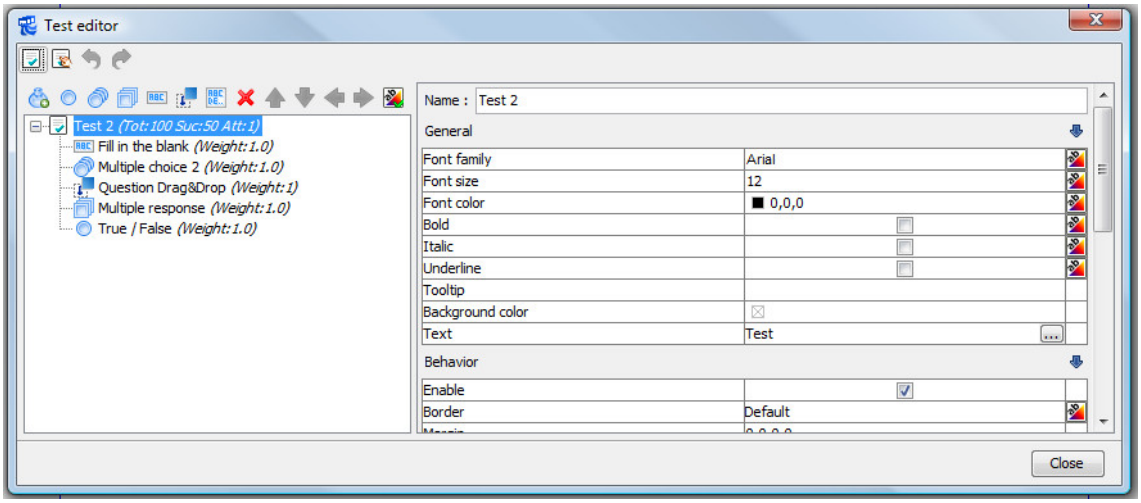
To start editing a test with EasyProf® we have to insert the content item Test container and then double click on it to visualize the Test Editor. *(See Figure 1a:Test container and Figure 1b: Test editor)*





Tests and questions

Test editor is used, as its name suggests, to edit tests and each question that those tests may contain. You can see this idea outlined in Figure 2. Test and questions.



We can conclude that the Test container is a content element that allows us to introduce testa in the content area. To eit those tests (and their corresponding questions), we use the Test editor.

On the other hand, we must keep in mind that:

- Each test container may contain one test with one or more questions.
- The test contained in the test container has its own specific score.

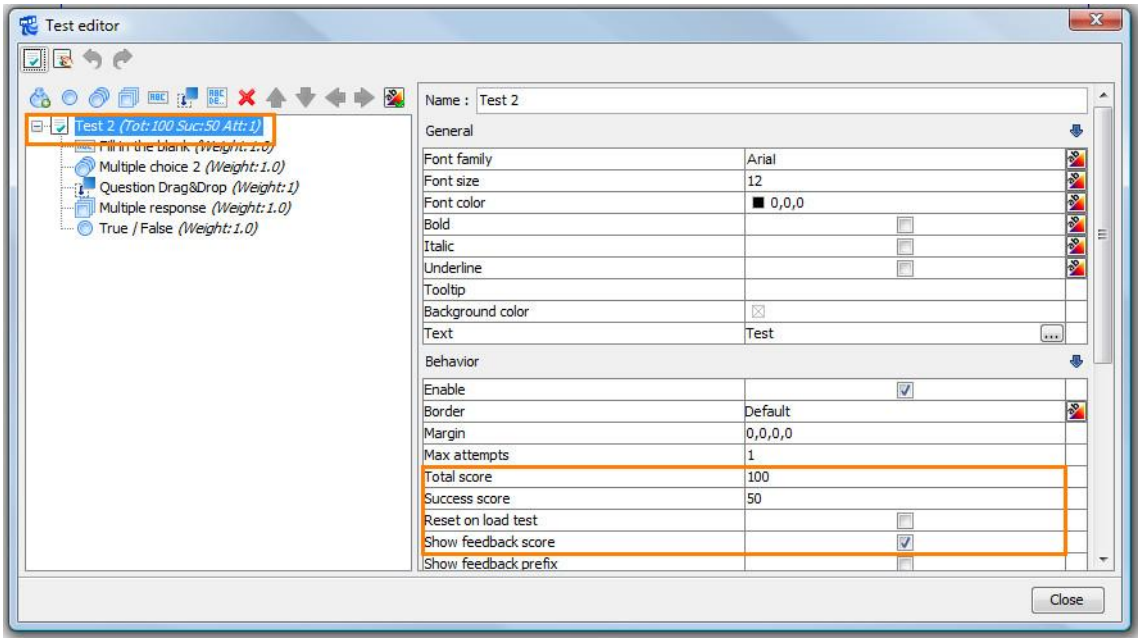
6.6.2. Score

Knowing these prerequisites, we can focus on defining the different types of scores that may be edited from the Test Editor.

Test score

Test score is called Score.

In the Test score, we see three parameters associated with test scores.



The total score is 100 by default, but we can introduce any value we want. However, it is worth bearing in mind that the total score should NOT be the sum of the scores given to each of the questions.

EasyProf® does an internal calculation to transform this score in a score based on any given value (based on 100, based on 10...).

Default success score is 50, but we can modify it at our discretion. This is the minimum necessary score to be obtained to pass the test (following the previous example, it is necessary a mark of 50 points out of 100 to pass).

If we keep the option Show feedback score activated, feedback given by the application will display the actual score obtained by the user (for example, 73 out of 100).

Question score

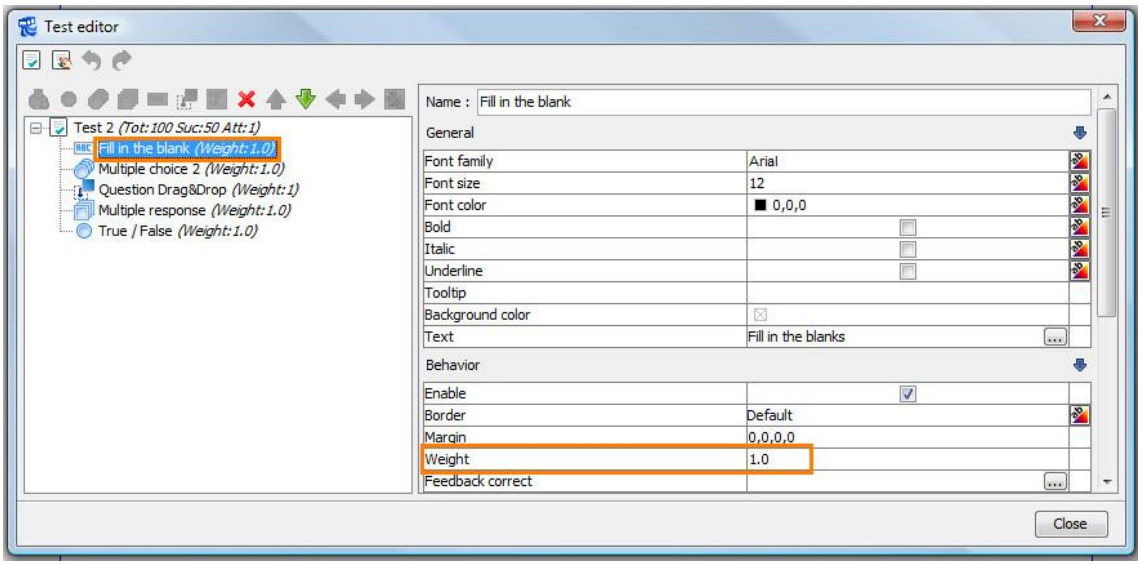
As previously mentioned, a test can contain one or more questions.

It is also possible to assign a specific score to each of the questions. Name given to the question's score is Weight.

The weight of each question is defined as the importance of a question within the whole test.

Looking again at figure 3, we see that it displays a test with 5 questions.

When selecting one of the questions, for example "Fill in the blank", we see that its default weight is 1. (See Figure 4. Question score. Default weight.)



Default weight of all questions is 1. If you decide to leave the weight of all questions as 1, it means that all questions are of equal importance in the test.

On the contrary, if we decide to change the weight of one of them, for example giving a weight of 2 to the "Fill in the blank" question, that will mean that the "Fill in the blank" question is 2 times more important than the rest.

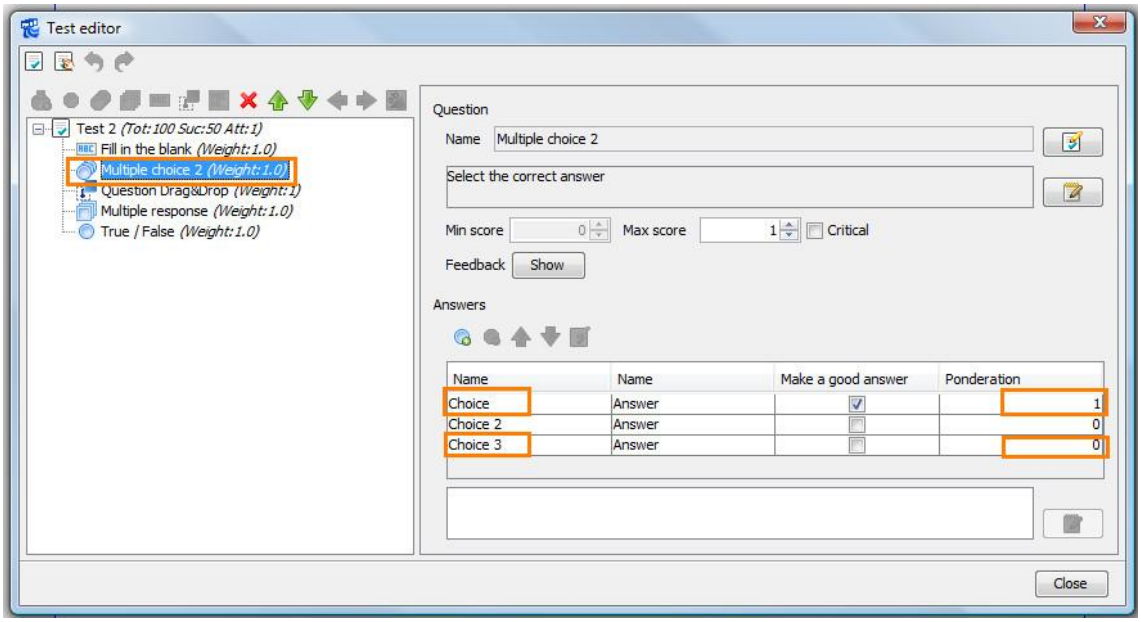
IMPORTANT NOTE: It is worth noting that the weight of the question is NOT the sum of the ponderations of the options of the questions (this concept is described below).

Choice questions score

Questions may contain different options. The name given to the score of the question's option is Ponderation.

By ponderation we will indicate which of the options in a question is correct. Let us look at an example:

We have a multiple choice question consisting on three options (A, B an C), of which only C is the correct answer. So we will give option C a ponderation of 1, while the incorrect options A and B will get a ponderation of 0.



While 0 and 1 are the values used by default, we can use any other desired value, including decimals or negative numbers.

IMPORTANT NOTE: It is worth remembering that EasyProf® performs internal calculations based on ponderation and weight of questions to obtain the final test score, so that the user should not worry about this.

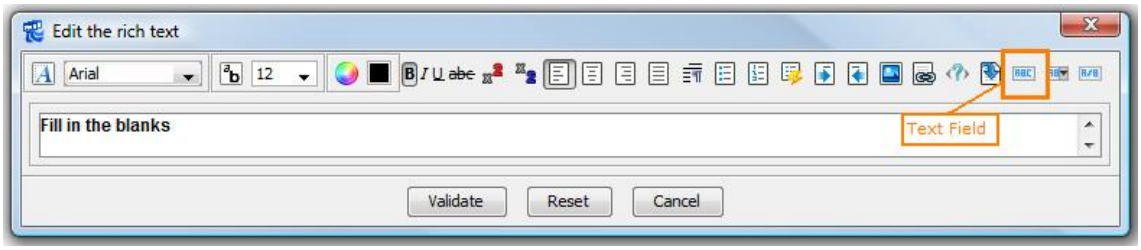
Is also worth noting that even if we give negative ponderation to the wrong answers, minimum total score of the test will always be 0. EasyProf® automatically performs this conversion.

Special case: Multiple response Questions

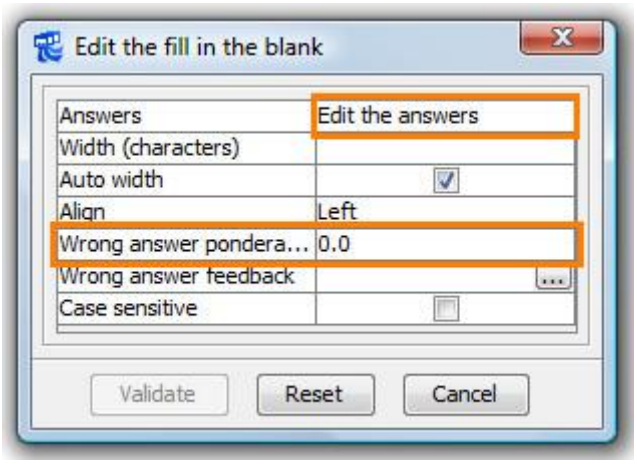
Multiple response questions are scored following the previous indications. However, they have a specific property to make their creation easier when all the power of the scoring system is not needed. On these occasions we must select the property Unselected ponderation. In such cases, the test manager automatically performs all necessary calculations between the maximum posible score and the minimum score (including the negative ones) to distribute the points evenly among all the correct answers. In such cases minimum score is always 0 and positive scores are calculated as a fraction of the correct answers respect the possible correct answers.

Special case: Fill in the blank Questions (Text field)

Next we will see how the ponderations must be scored when working with Fill in the blank questions, in particular Fill in the Text field. (See Figure 6. Fill in a Text field)



In this case, fields for correct and wrong answers are well differentiated (See Figure 6b: Editing the fill in the blank)

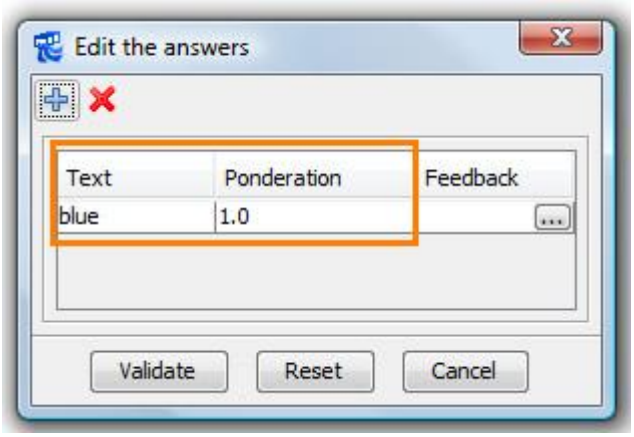


We find a field to insert the ponderation in case of a wrong answer. This default value is 0, but it can be modified and changed, for example, for a negative value.

This is the value that EasyProf® will apply whenever the user inserts a text that does not correspond neither to the right nor to the wrong answer.

To edit the text and ponderation of the correct answers, click on Edit the answers and a new window will be opened. Here we will insert as many answers as we consider necessary.

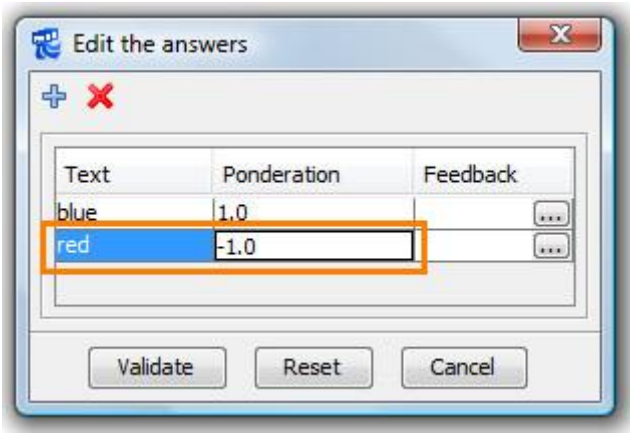
(See Figure 6c: Ponderation of correct answers in answers' edition).



In this case, any answer different of blue will be considered wrong and given a core of 0.

This described example is the most generic, but there are other possibilities. In the answers' edition window we may include answers with different ponderations.

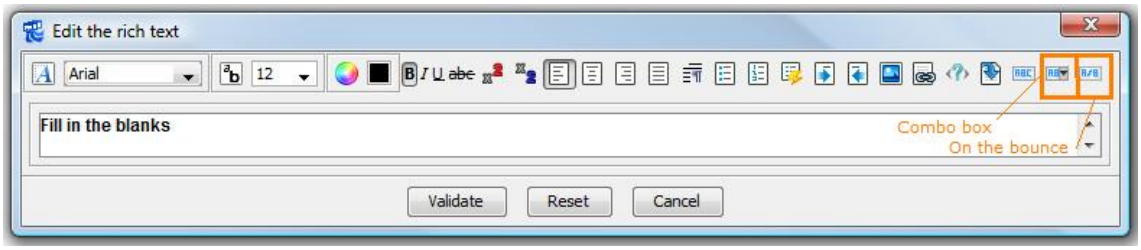
Following with the previous example where blue was the correct answer, we may want to punish the answer red with a negative score (See Figure 6d: Other cases).



Ponderations listed in the window, whether correct or incorrect, prevail over the indicated ponderation for an incorrect answer. That is, in this case, blue would score 1, red -1 and anything different from blue and "red" would score 0.

Special case: Fill in the blank Questions (Combo box) / On the bounce)

A small consideration is needed for the ponderations of the rest of Fill in the blank questions such as Combo box and On the bounce.



The difference between these type of questions and Fill in a text field type is that in this case all options are already given and there is no need to write any text.

Once this has become clear, it should be noted that ponderation works exactly as in the previous example. Note that wrong answer ponderation will be only applied if user does not select any of the given answers.

Special case: Multiple response Questions

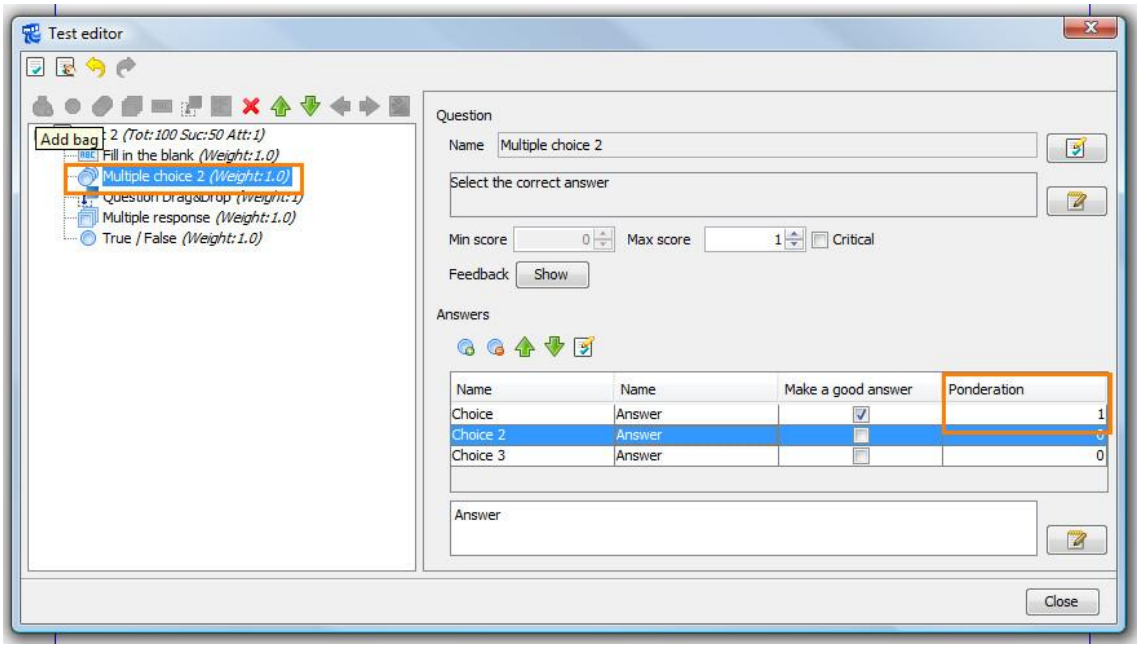
Multiple response questions, those where more than one answer is correct, deserve a special explanation.

Imagine you have a multiple choice exercise with three options (A,B an C), of which A and B are correct and C is incorrect. If we act as in the Multiple choice questions (where only one answer is correct), where the ponderation of the correct answer is 1 and 0 for the wrong answer, we would meet the following case:

By selecting A and B as correct, user would get 2 points (internal): A(1) + B(1) = 2.

However, by selecting all 3 options, user would get the same score as if he had answered correctly: A(1) + B(1) + C(0) = 2.

That is why this type of question includes a field for the ponderation of not marked options (See Figure 8a: Multiple response questions. Ponderation of not selected answers).



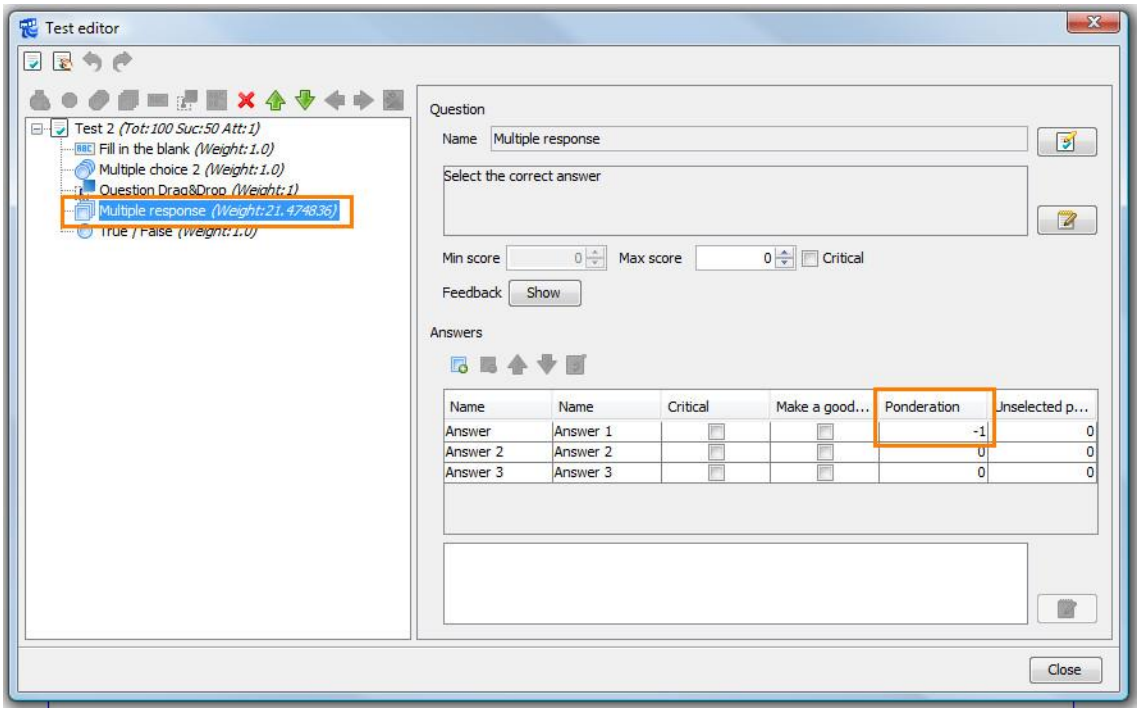
Back in our example, we would keep a ponderation of 0 for the wrong answer C, but we would add a ponderation of 1 if the wrong answer is not chosen.

Let's see the example test result:

By selecting A and B as correct, user would get 3 internal points: A(1) + B(1) + C(1) = 3.

However, if the three options were selected as correct, user would get a lower score: A(1) + B(1) + C(0) = 2.

A different way to proceed, but equally valid, consists on giving a ponderation of 0 to the unselected answers and a negative value to the wrong answers. (See Figure 8b: Multiple response questions. Negative ponderation of wrong answers)



Applying this new procedure to option C in the example, we would get the following result:

Selecting A and B as correct, user would get 2 points (internal): A(1) + B(1) = 2.

Selecting A, B and C as correct, user would a lower score: A(1) + B(1) + C(-1) = 1.

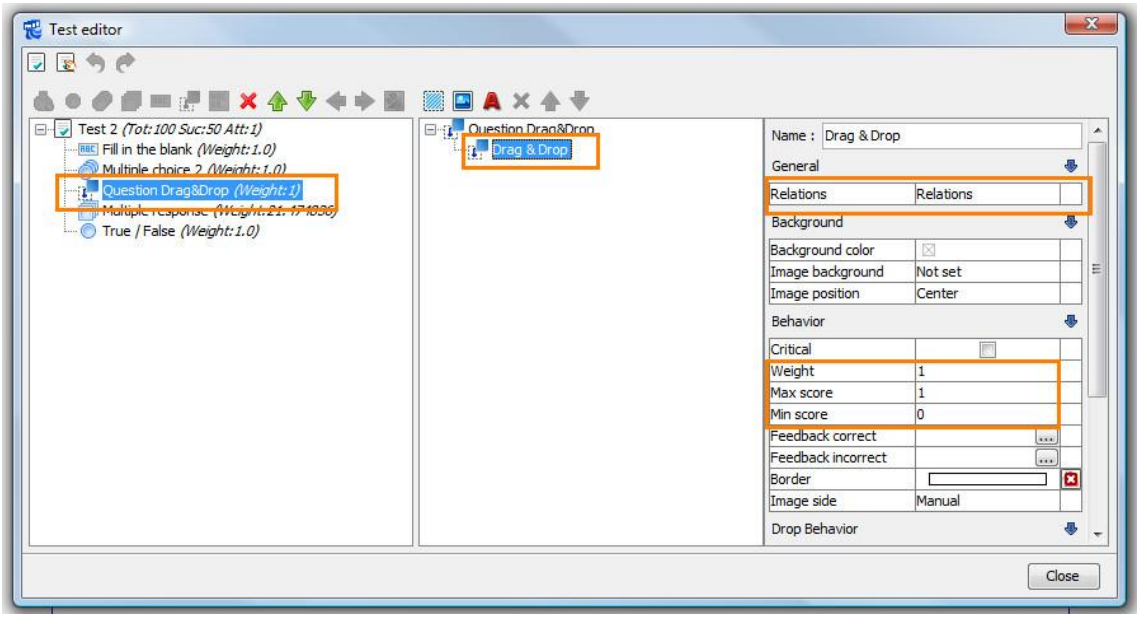
As we can see, there are many posible combinations and can be adapted to each author's taste. However, it should be pointed out that in Multiple response questions wrong answers must have a negative ponderation if selected or a positive one if unselected.

Special case: Drag & Drop Questions

Drag & Drop exercises, those whose aim is to drag objects (images or labels) to specific target areas, deserve their own chapter as well.

Besides having to indicate the weight, as in all type of questions, we must indicate the possible Maximum and Minimum score that may be obtained in the exercise. (See Figure 9a: Drag & Drop questions.)

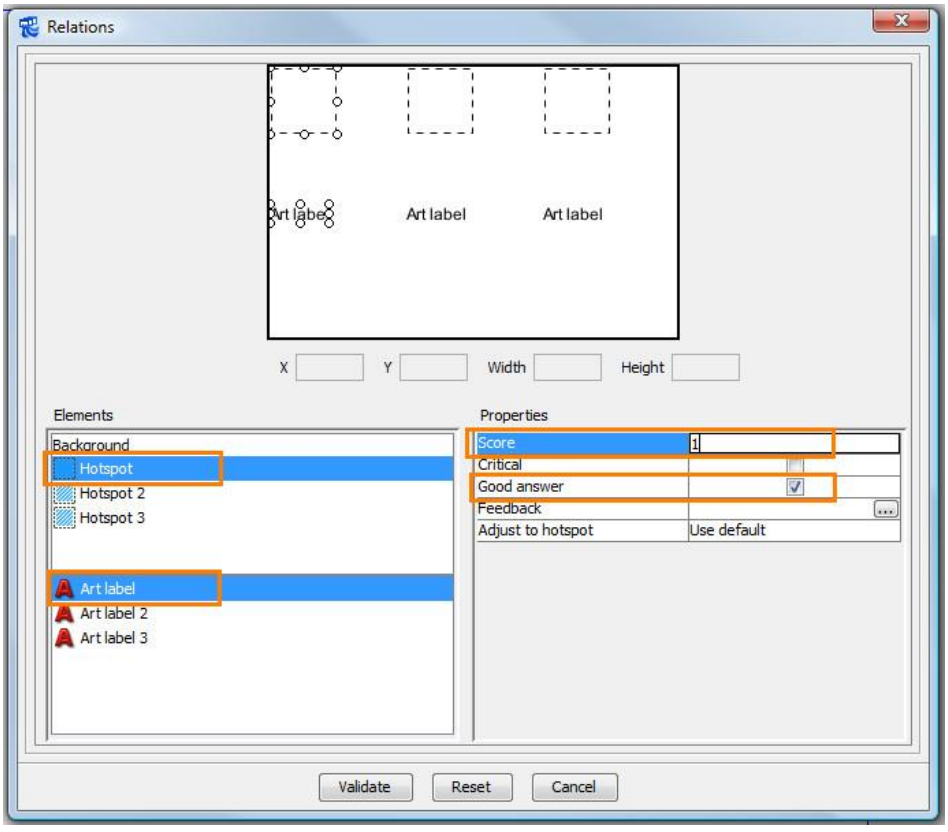
Unlike in other exercises, in Drag & Drop exercises, these values ARE related to ponderation used to indicate correct answers.



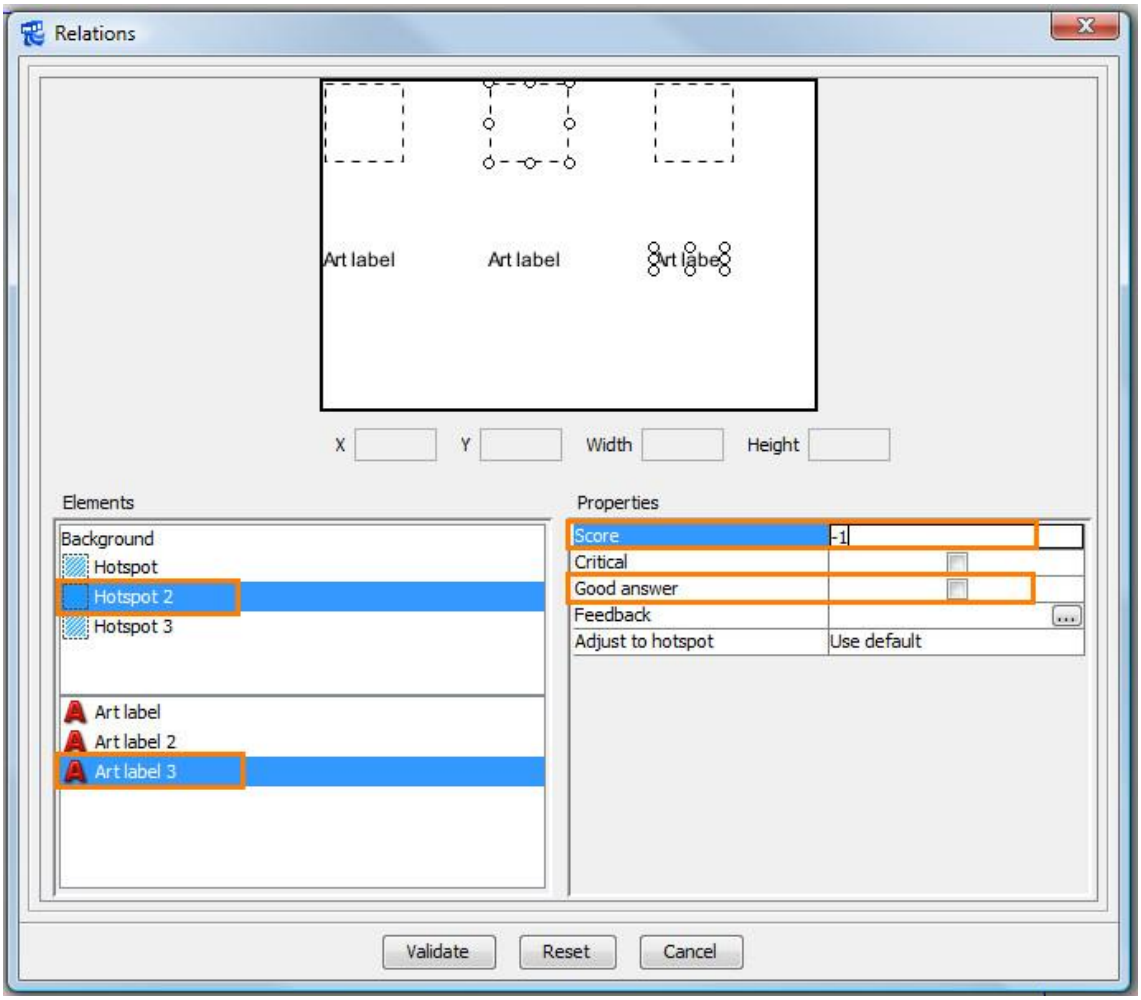
To specify the ponderation, we must click on the parameter Relations (See Figure 9b: Drag & Drop correct answer ponderation.).

First of all we must select a hotspot and its corresponding drag element. In the properties box to the right, we will activate the Good answer option and will give a value to the Score field (usually 1).

Repeat this operation for each existing correct match.



It is posible, as well, to change the value of the incorrect matches (relations), but then we should NOT activate the Good answer option. (See Figure 9c: Drag & Drop incorrect answer ponderation.).

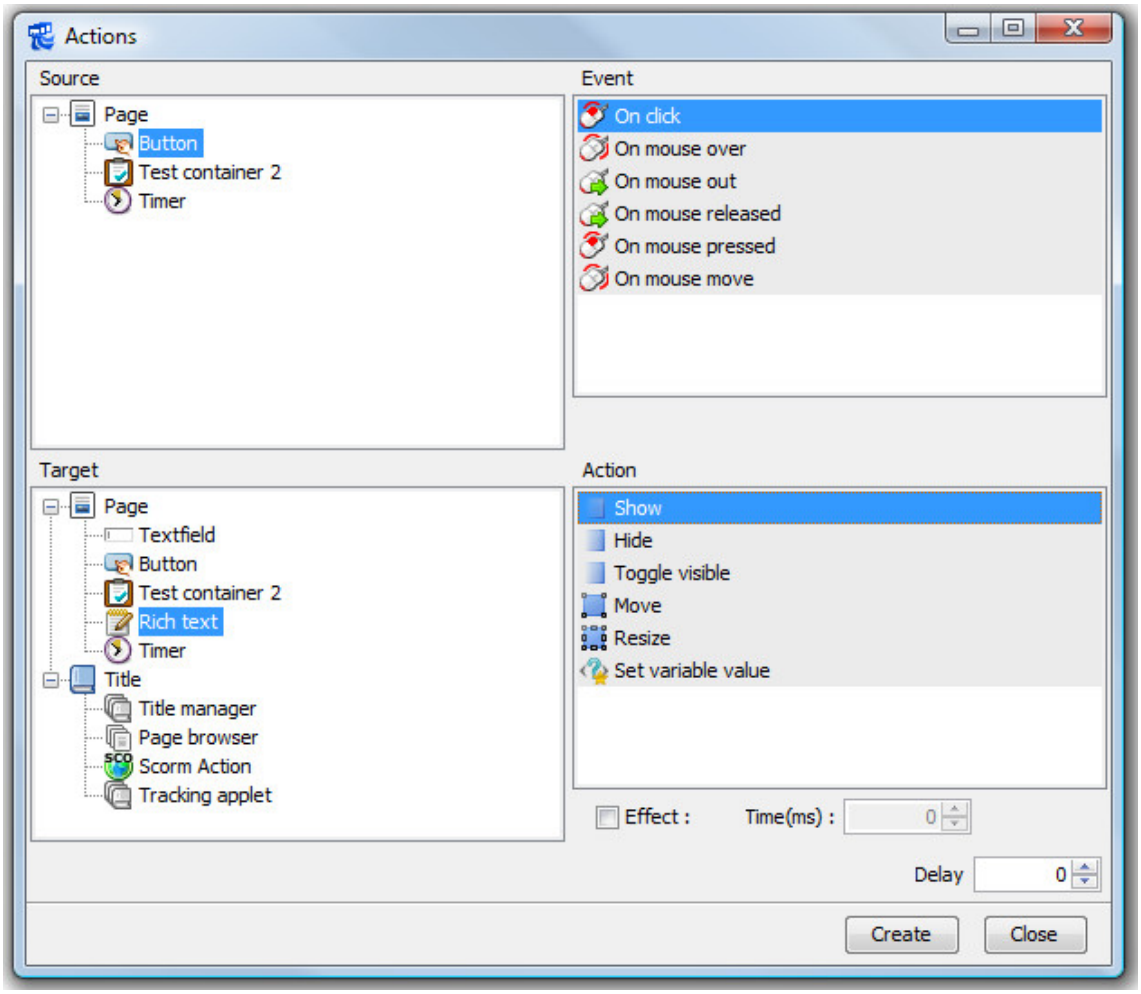


7. INCLUDING INTERACTIVITY

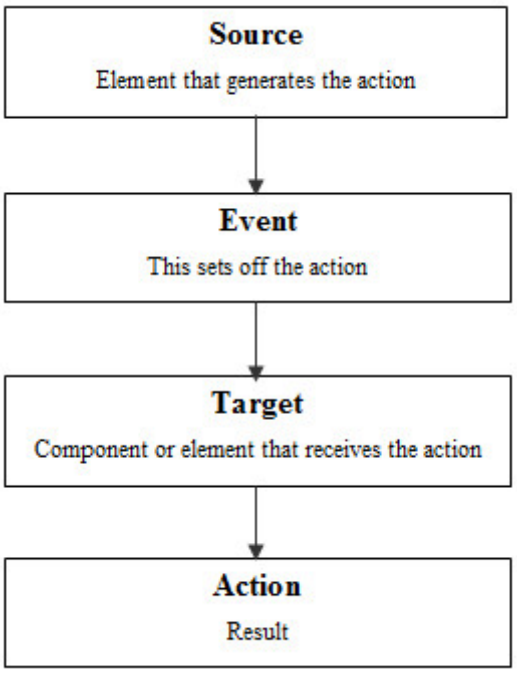
In EasyProf®, actions allow you to provide interactivity for the various elements in the Title. All the actions are created by means of the Action Window, with no need to write a single line of code.

7.1. The Action Window

The Action Window is used to set the chain of relationships that links a source component or content element that is able to generate an action to a target component that receives the action.



Actions are created by means of the various dropdown lists in the window above, which gives us the following diagram that is frequent when establishing cause-effect relationships



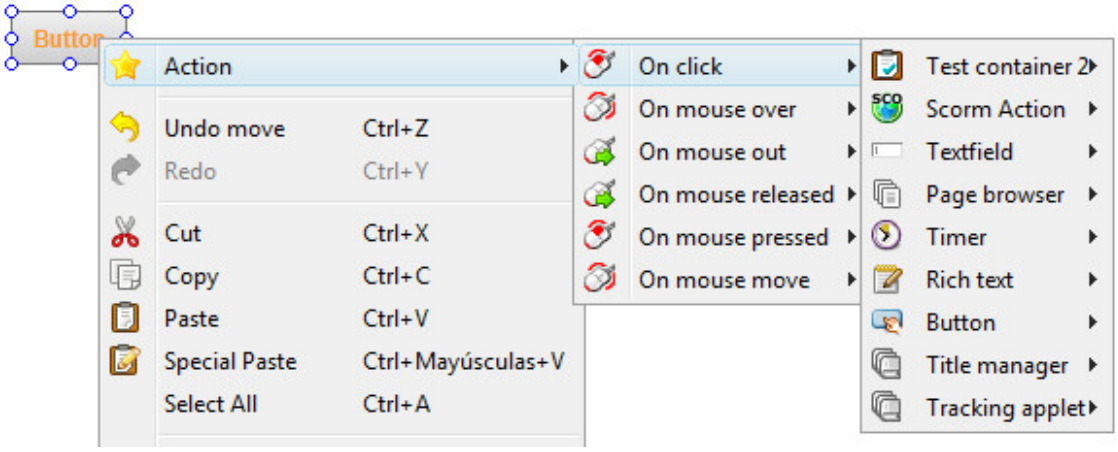
The options that appear in each of the dropdown lists depend on the elements selected, i.e., only the options that are possible for each content element will be displayed.

You can use any of the following options to open the Action Window:

- Select menu:

  Object > New Action

- Click on the [New Action] icon located on the toolbar.
- Press the key combo [Ctrl.+J].
- Click on the right-hand mouse button. A contextual menu will appear where you will be able to select the New Action option



Action Window elements

The Action Window is made up of the following drop down lists:

Source: The Source list shows all the elements of the page that are able to generate an action. The following are action sources:

- Page and Master page.
- Button.
- Active label.
- Image.
- Hot spot.
- Carousel
- Media
- Sound
- Test
- Timer.
- Variable.

Event: The Event list shows the various events and statuses of the component that generates the action (clicking on a button, moving the mouse over an object, stopping the timer, etc.) Events depend on the element chosen from the Origin list.

In next page table, we can see all posible events for content elements. There is an event corresponding to each page or to the Master Page that happens when any of both is loaded, that's why it is called On load. This event does not appear on the table. Events related to variables are explained in last section of this chapter.

Target: All EasyProf® content elements can be the target of actions.

In addition to page content elements, there are internal components, described below, which manage various of the Title's actions: the Title Manager and the Page Browser.

Action: This specifies the action to be carried out (Go to page, print, etc.). Three different types of action may be established: actions that are common to all the content elements or those that are specific or exclusive to particular elements and Navigation and Title Manager Actions. These actions will be explained in the Action Types section.

In the Action Window we can find the following options, displayed according to the action or the selected elements:

Set parameters:

In certain cases, after selecting an action, this button will appear, allowing you to set the values required to carry out certain actions. For example, if the Page Browser is chosen as the target of the action because you want to open a page, this button allows you to set the type of window in which the page you want to open will open.

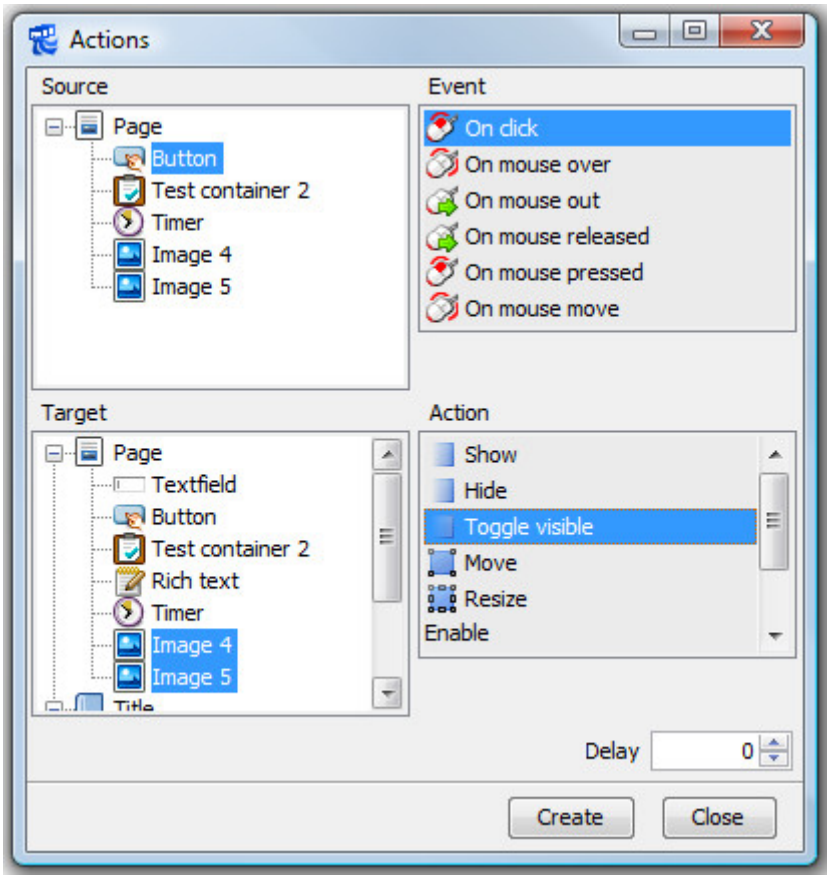
Delay:

Always visible. It offers the possibility of assigning a delay time, in milliseconds, in the action execution from the moment when the event occurs.

Efects:

In some actions, like show or hide, we have the option to define an effect by checking a box and assigning a time in milliseconds. When we speak about show, the object will appear slowly during the marked time.

Multiple actions: We can generate actions taking as source or destination multiple elements. Thus, if we want multiple images to move when we press a button, we only have to select them in Destiny window. To select more than one single element we must press Shift key while clicking on each of the elements to select.



Create: Once the four parameters of an action have been defined, you must click on this button to create the action.

Close: This lets you close the Action Window.

	Source								
Events	Image	Carousel	Media	Sound	Active label	Hot spot	Timer	Button	Test
Start			YES	YES					
Stop			YES	YES					
On image change		YES							
Action performed								YES	
Mouse clicked	YES				YES	YES		YES	
Mouse dragged								YES	
Mouse entered	YES				YES	YES		YES	
Mouse exited	YES				YES	YES		YES	
Mouse moved								YES	
Mouse pressed	YES				YES	YES		YES	

Mouse released	YES				YES	YES		YES	
Abort							YES		
Finish							YES		
Failed									YES
Passed									YES
Repeat marking									YES
Start timer									YES
Stop timer									YES

All events in the table are self explanatory, except perhaps the Action performed and the difference between Mouse dragged and Mouse moved, all of them belonging to the element Button.

We understand by Action performed the process of pressing and release of the button. This can be achieved with the effect Mouse click and by pressing the keys (Space bar or Intro), o it could be said that Action performed is more generic because it gathers them all. User should preferently use Action performed. This will allow that in case the final user clicks any of those two keys, he will see not only how the button is pressed and released, but that a resulting action has been produced, something that wouldn't happen if the event is one of those achievable with the mouse, such as Mouse clicked, Press button, etc.

With respect to events Mouse dragged and Mouse moved, both are met by moving mouse on top of button,but in the first case left mouse button (or right button for left handed, if applicable) must be pressed for the event to exist. It should also be noted that a shift of a single pixel is enough for these events to happen, so that a movement of many pixels will imply the repeated execution of an action. This fact will not have obvious consequences in some actions, but it will in others, as in the case, for example, that the action is a shift as pixeles has shifted the mouse.

Actions that each element has as Destiny are dealt with in:

(Section 7.4 Action types, in this same chapter)

7.2. How to create an action

To create an action you need to follow the steps below:

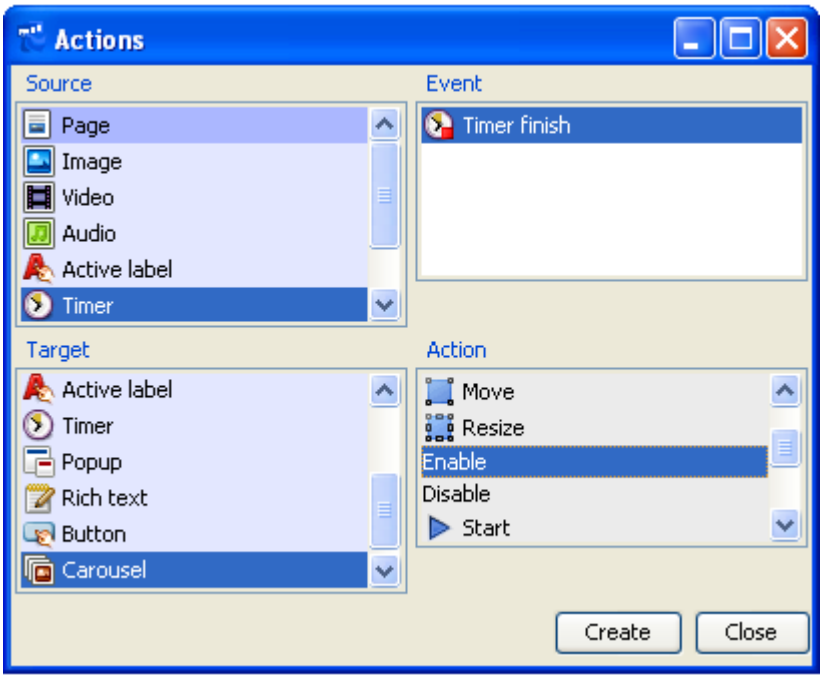
1. Open the Action Window located in the Object > New action menu, bearing in mind the following:
   - The window will only open when a page is open.
   - If a content element is selected when the window is open it will be pre-selected in the Source field.
2. Choose the Source if it has not already been selected on the page. The Event field will be active.
3. Choose the Event that will generate the action.
4. Choose the Target of the action. The Action field will be active.
5. Choose the Action.
6. Click on [Create].
7. Click on [Set parameters] if this button appears and you wish to configure additional parameters.

7.3 Actions scope and grouping

Actions scope:

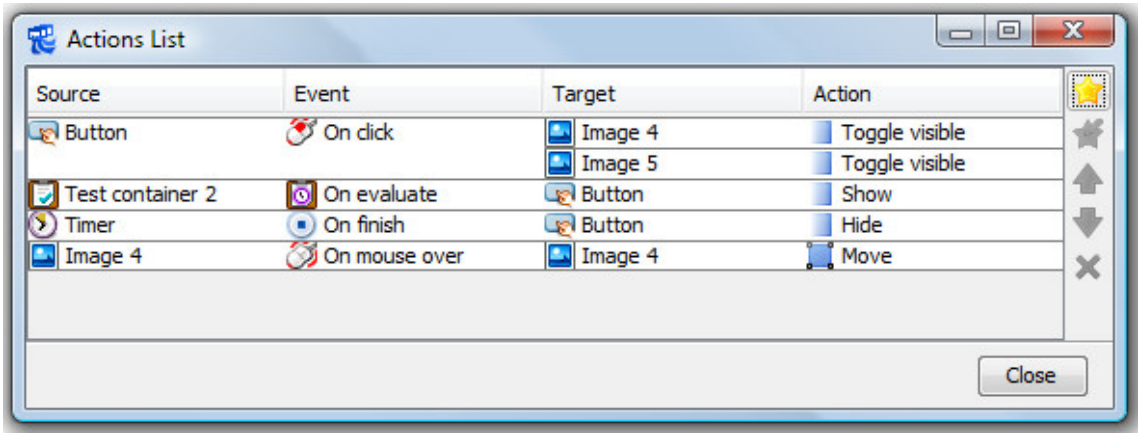
Through the actions use we can act on the Content Elements of their MP, but not the other way around. We can illustrate this fact in the two following images that show the Actions Window aspect respectively when creating actions from a page and from a Master Page (see source box).

We can perceive the scope in the Target Box: when creating actions in a MP, the Content Elements belonging to the Page to which it was assigned don't appear.



Actions with a common source and event:

An event produced over a determined content element can trigger not only one but several actions. Reaching this goal is as easy as create as many actions as required, with the same Event and Source, although the Target and tha actions may be different. See paragraph Actions List of the current chapter.



7.4 Action types

There are three different types of actions in EasyProf®:

- Common actions or actions applicable to several content elements.
- Non-common actions, which are only for certain content elements.
- Internal components actions: Page browser, Title administrator an External connection.

Title Manager actions deserve a special treatment, so please see: Chapter 8: The title manager utilities.

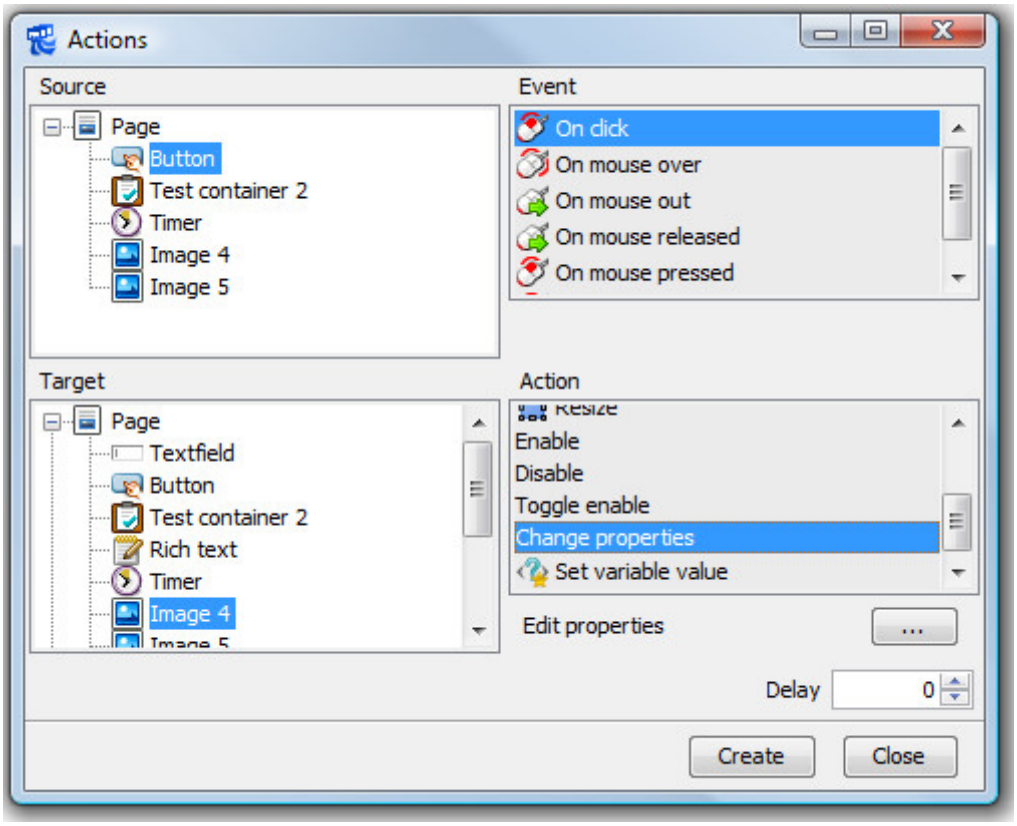
Common Actions

- Common actions or applicable to several content elements are:
- Change attributes.
- Move.
- Resize.
- Show.
- Hide.
- Enable and disable.

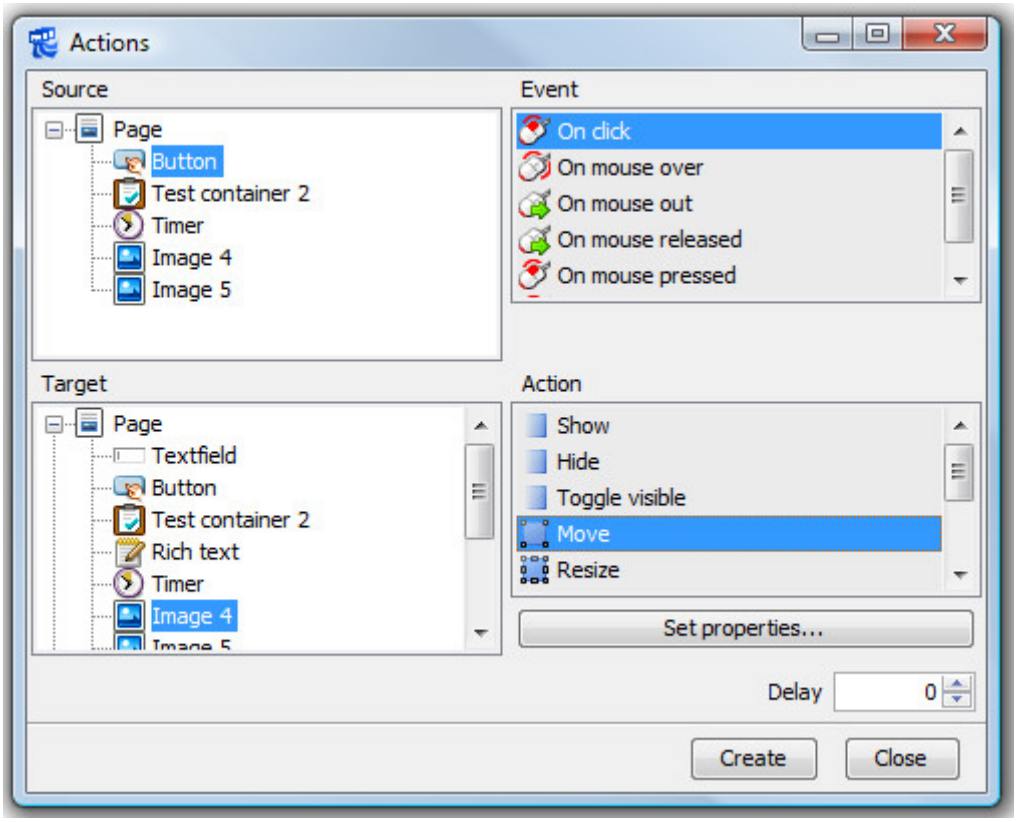
Properties change

This action, the most versatile, allows the dynamic modification (ie, in time of execution when Title is previewed by the user or viewed by the final user) of all attributes of the content elements.

Final state of the attributes can be defined in a window that includes a menu bar and different formats that allow editing Text fields, tables, etc. Attribute window appears as well embedded, with button (Other attributes) when it exists or in the Preview area, where we can see a preview of the content element in the same state that it will have when the action will be executed.



Move



This type of action moves the elements on the page.

Example: To create a Move action follow these steps:

1 - Insert an interactive content element in the page, for example a button (called Button 1).

2 - Open the New Action Window.

3 - Choose Button 1 in the Source field.

4 - Choose Action performed in the Event field.

5 - Choose a component in the Target field, for example an image (Image 1).

6 - Choose action Move in the Action field.

7 - Click on the [Set parameters] button, choose the desired parameters and click on [Ok].

The Set Parameters window contains the following options:

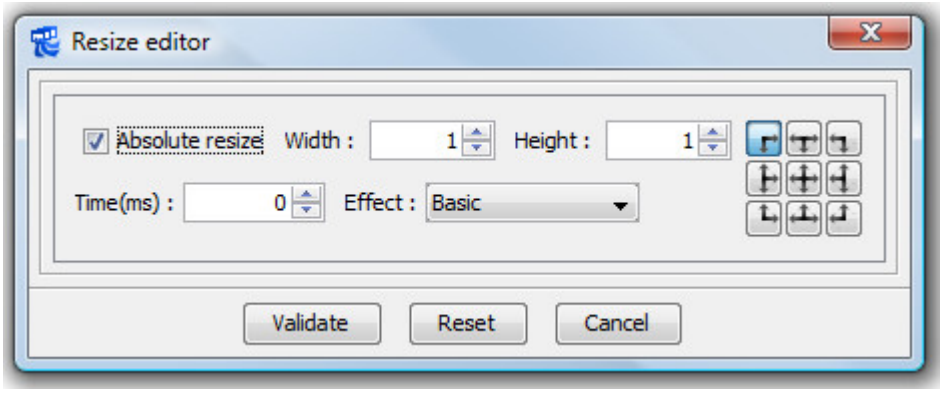
Absolute	Here you specify the absolute target position in pixels.
Relative	This lets you specify the number of pixels' increase or decrease in relation to the component's initial position. With this option, as it is relative, whenever click on the source component of the action, the position of the Target component will change.
Time (ms)	Duration of the action in milliseconds.
Efect	Defines how the animation is displayed. This aspect will be described in detail in the next section.

Resize

This type of action changes size of the elements on the page. To do this, you must carry out the following:

The Set parameters window includes the following options:

Absolute	Here you specify the Absolute final size of the target in pixels.
Relative	This lets you specify the number of pixels' increase or decrease in relation to the component's initial size. With this option, as it is relative, whenever click on the source component of the action, the size of the Target component will change.
Time	Duration of the action in milliseconds.
Efect	Defines how the animation is displayed. This aspect will be described in detail in the next section.
Source X	This sets the horizontal resizing of the element from its right or left margin or from the center.
Source Y	This sets the vertical resizing of the element from its top or bottom margin or from the center.



Show

This lets you show content elements in the page that are hidden. In order to show the element, you need to select in the Visible option of the Attributes Window the option Yes.

Example: In order to create a Show action, you must carry out the following:

1 - Insert a bean on the page, for example, a button (Button 1).

2 - Open the New Action Window.

3 - Choose Button 1 in the Source field.

4 - Choose Mouse clicked in the Event field.

5 - Choose a component in the Target field, for example an image (Image 2).

6 - Choose the desired action (Show, Hide) in the Action field.

7 - Click on the [Create] button.

If nothing is specified, item will appear suddenly. Pressing the effect selector we can define a time of execution that will create an animation whereby the shown element will appear slowly during set time (in milliseconds). Animations will be discussed in detail in next section.

See section General attributes of content elements:

(Chapter 6: Beans and content element attributes.)

Hide

This lets you hide page elements. In order to hide the element it is necessary for you to select the No alternative in the Visible option of the Attributes Window. This option has the value Yes by default. It works as Show option.

See section General attributes of content elements:

(Chapter 6: Beans and content element attributes.)

Visibility exchange

This option allows us to interchange the visibility of an object with a single action. We may want, for example, to show a hidden image by clicking on a button and use that same button to hide that image when visible.

Enable and Disable

These actions allow you to enable and disable interactive content elements. In this manner, you can make an element remain inactive until a certain action is performed or make an active element deactivate when an action is performed.

Enable

This lets you activate a content element in order to perform an action. The element must obviously have been disabled beforehand if it is to be enabled.

Example: In order to create Enable actions, you must carry out the following:

1 - Insert a bean on the page, for example, an Active label.

2 - Open the New Action Window.

3 - Choose Active label in the Source field.

4 - Choose an Event, for example, Mouse clicked.

5 - Choose the button that you wish to enable in the Target field.

6 - Choose Enable in the Action field.

7 - Click on the [Create] button.

Disable

This lets you disable possible actions that belong to the disabled content, so that they are not performed.

Example: In order to create a Disable action you must proceed as follows:

1 - Insert a bean on the page, for example, Active label.

2 - Open the New Action Window.

3 - Choose Active label in the Source field.

4 - Choose an Event, for example Mouse entered.

5 - Choose the button you wish to disable in the Target field.

6 - Choose Disable in the Action field.

7 - Click on the [Create] button.

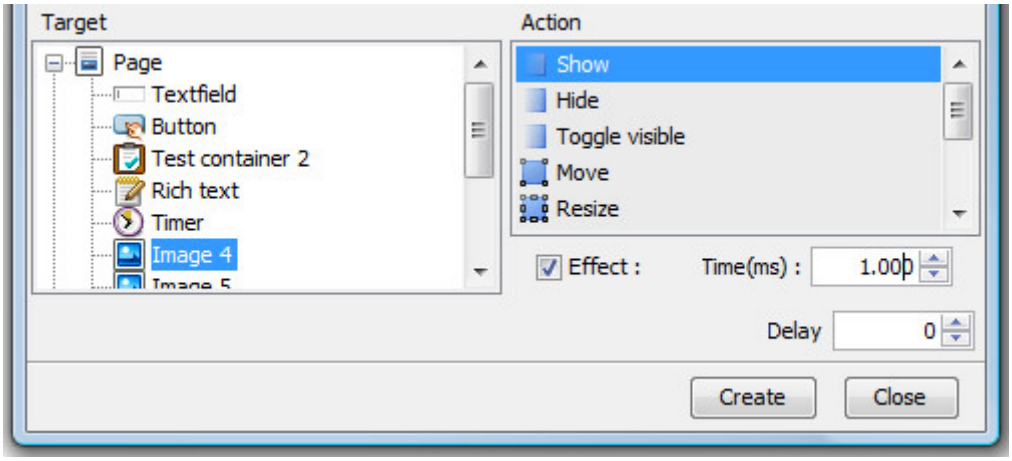
Toggle enable

This action allows us to toggle the state of an element with a single action. If the item is enabled, action will disable it and vice versa.

Animations and effects

Common actions such as move, resize and show / hide may generate an animation if we give them a time of execution. Such animation may be modified by the use of effects.

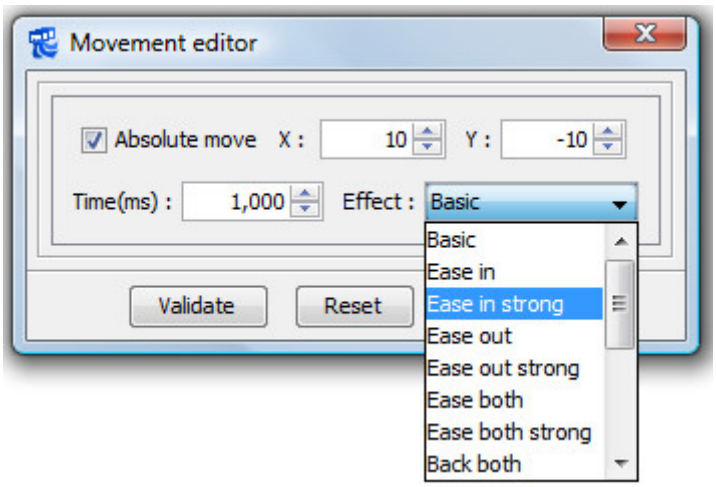
In the case of show / hide, we simply have to check the selector Effect and give it a time of execution in milliseconds.



The element will be shown od hidden in the specified time uniformly.

When it' time to move an object, we have to select button Set properties in the same way that we did to define where an object should be moved. In addition to choosing if it moves to an absolute position or a number of points in the X and Y axis, we can set a time of execution. Such time, written in milliseconds, will define how long must last the animation. If we select a time of 1.000 for an object to move 100 points in X axis, object will slowly move from its initial position to another one 100 points away to its right. This movement will last exactly one second. The smaller the chosen time and the greater the distance to move, tha faster will be the movement.

Besides choosing duration of a movement, we can select an effect. This effect will not affect the movement time but to its speed. If we add an example by which the object moves back a few milimeters before starting the movement, total time for realising the whole movement will be the selected one, so movement will be a little bit faster.



Displacement effects that we can use are the following:

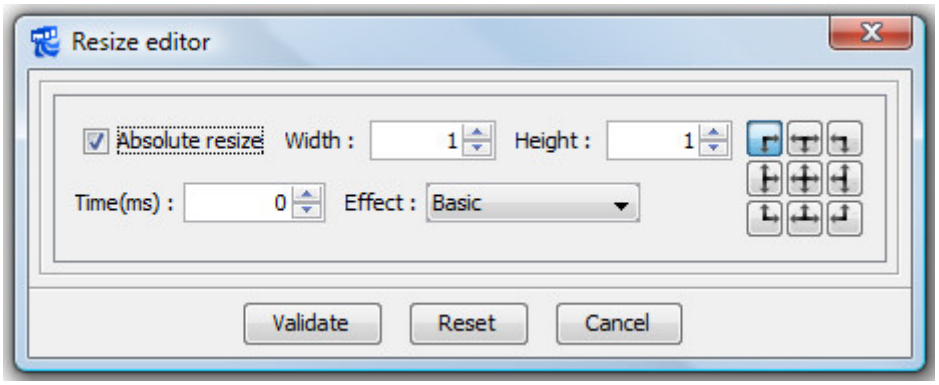
- Basic: Object moves in a straight line and with a continuous speed in the specified time.
- Ease in: Object moves in the specified time, but movement starts slow and gradually accelerates to finish faster.
- Ease in strong: Same than Ease in but picking up speed much faster.
- Ease out: Object moves in the specified time, but movement starts fast and gradually slows down to finish slower.
- Ease out strong: Same than Ease out but slowing own much faster.
- Ease both: Movement starts as when easing in but when it reaches half way it starts working as when easing out.
- Ease both strong: Movement starts as when easing in strong but when it reaches half way it starts working as when easing out strong.
- Back both: Object moves slightly and slowly in the opposite direction to that indicated for the movement, to start immediately afterwards a uniform movement in the correct direction. When reaching destination, movement continues for a little while before returning to destination. The entire process, including setbacks, is made within the indicated time.
- Back in: Object moves slightly in the opposite direction to that indicated for the movement, to start immediately afterwards a uniform movement in the correct direction. When reaching destination, movement stops.
- Back out: Object moves in a straight line and with a continuous speed in the specified direction. When it reaches its destination, movement continues for a little while before returning to its destination.
- Bounce both: When action starts, object moves slightly to the indicated direction to go back to the starting point. Then performs a new movement slightly larger to go back again. It moves for a third time much more to go back again. After that it moves to the destiny point with a constant speed. Upon arrival on destination, it goes back quite a big distance to return to its destiny. Once again it goes back a shorter distance to go back to destiny when again and for the third time goes back (this time only a few points) to go back, finally to its destination.
- Bounce in: When action starts, object moves slightly to the indicated direction to go back to the starting point. Then performs a new movement slightly larger to go back again. It moves for a third time much more to go back again. After that it moves to the destiny point with a constant speed.
- Bounce out: Object moves to the destiny point with a constant speed. Upon arrival on destination, it goes back quite a big distance to return to its destiny. Once again it goes back a shorter distance to go back to destiny when again and for the third time goes back (this time only a few points) to go back, finally to destiny.
- Elastic both: When action starts, object moves slightly in the opposite direction to the indicated to reach its destination. This movement is repeated three times, each repetition making bigger the distance between object and destiny to finally go to it at a uniform speed. When reaching destiny

point, it surpases it considerably to go back to destiny. This movement is repeated three times, decreasing distance, until the object finally stops at the destination.

- Elastic in: When action starts, object moves slightly in the opposite direction to the indicated to reach its destination. This movement is repeated three times, each repetition making bigger the distance between object and destiny to finally go to it at a uniform speed. When reaching its destination point, it stops.
- Elastic out: When starting action, object moves in the direction of its destination in a straight line and with uniform speed. When it reaches destiny point, it surpases it considerably to go back to destiny. This movement is repeated three times, decreasing distance, until the object finally stops at the destination.

All these movements may start from and to a point outside the screen.

Regarding Resize action, generation of animations and effects works as in Move. The only difference is that we will have to choose where to resize the object. Animation effects are the same than in the Move action.



Variable parameters

This action allows us changing X and Y position parameters of an object. Exactly the same way than in the Move option, we can define an absolute location of the element, but in this case we can treat independently position X and Y and give them a value from a variable.

Non-common content element actions

Below is the list of content elements that have specific actions as well as the internal components action such as Page Browser and Title Manager actions.

Carousel bean actions

First: This shows the first image in the sequence.

Last: This shows the last image in the sequence.

Next: This shows the next image in the sequence, after the current image.

Previous: This shows the previous image in the sequence.

Go to image: This option allows direct access to an image in the carousel. Number of image may be taken as a variable.

Auto start: This starts running the image sequence.

Auto stop: This stops running the image sequence.

Example: Imagine there are two buttons (Start and Stop) and a carousel (Carousel 1). You can control the starting and stopping of the carousel by associating the required action with each of the buttons:

1. Open the Action Window.
2. Choose the Source, in this case the [Start] button.
3. Choose the Event: Mouse clicked.
4. Choose Carousel 1 as the Target.
5. Choose the Action: Auto start.
6. Click on the [Create] button.

In order to complete the exercise, you must repeat the steps set out above, with the Stop button as the Source and Auto stop as the Action.

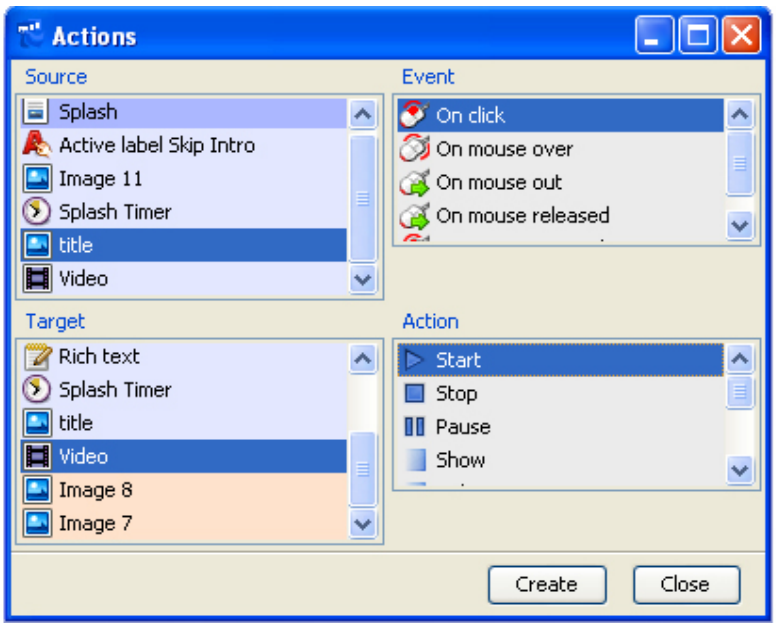
Media bean actions

Start: This starts playing the animation or video that has been inserted in the file field of the Media Attributes window. In order to specify the file see the General attributes of content elements section in Chapter 6: Beans and content element attributes.

Start loop: This starts to repeatedly play the animation or video.

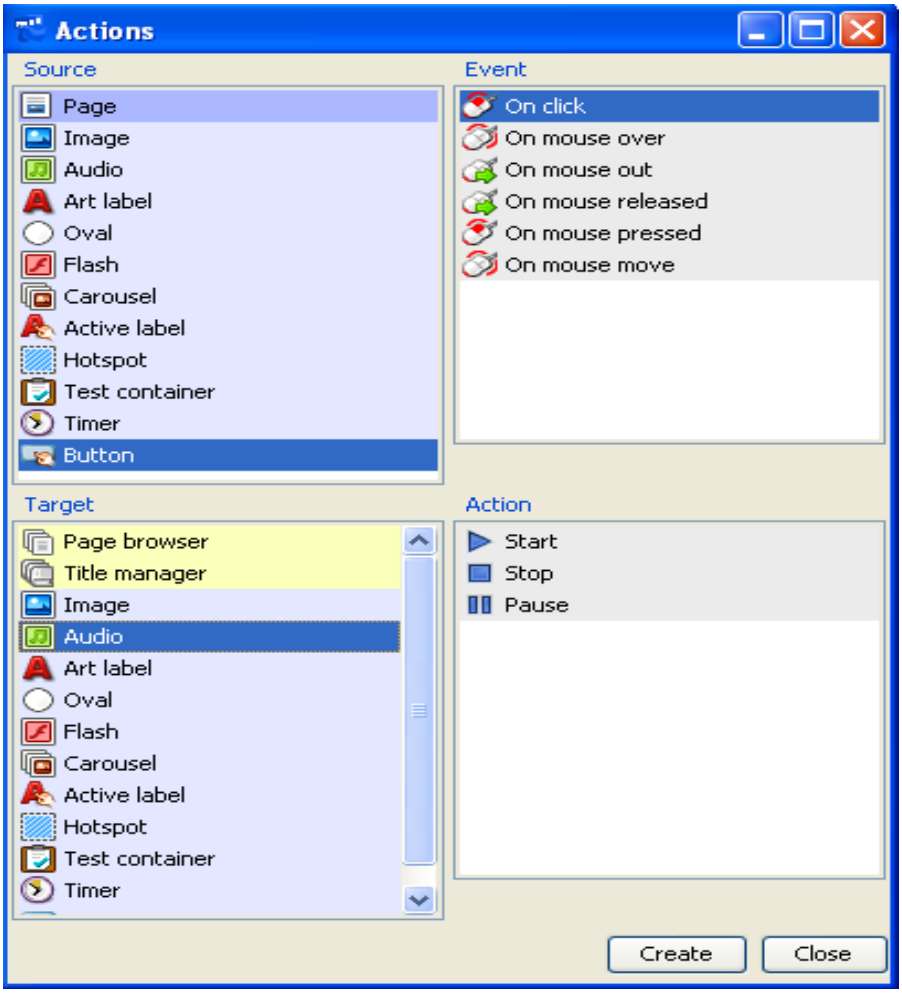
Stop: This stops playing the animation or video that was inserted in the file field of the Media Attributes window.

Pause: Unlike the stop option, this lets you freeze the media.



Sound Content Element actions

The Sound Content Element has three exclusive actions: Start, Stop and Pause.



Start: This starts playing the sound.

Stop: This stops playing the sound.

Pause: This momentarily stops the sound

Example: T create an action with the Hot spot and Sound elements. Suppose you want a sound file to play when you click on the hot spot:

1. Insert the Hot spot element in the page.
2. Place it and give it the desired size.
3. Insert the Sound element (sound 1) in the page.
4. Open the Action Window.
5. Choose the relevant options in the Source, Event, Target and Action fields.
   - Source: Hot spot 1 (name of the hot spot element).
   - Event: Action performed.
   - Target: Sound 1 (name of the sound element).
   - Action: Start.
6. Click on [Create].

Active label Contents Element actions

The active label bean includes three specific actions that let you change the color of the caption:

Set substitution color: When you choose this action, the color of the caption will change to that set in the bean's Attributes Window as the Substitution color. See the Content Elements Attributes section in Chapter 6: Beans and content element attributes.

Set color: When you choose this action, the caption will return to the original color set in the bean's Attributes Window as the Text color. See the Content Elements Attributes section in Chapter 6: Beans and content element attributes.

Set rollover color: When you choose this action, the color of the caption will change to that set in the bean's Attributes Window as the Rollover color. See the Content Elements Attributes section in Chapter 6: Beans and content element attributes.

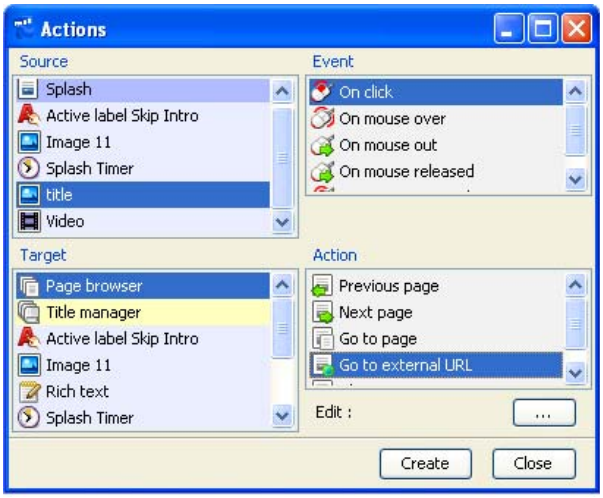
Example: If you want a question to appear when you click on the label's caption, you need to take the following steps:

1. Insert the Active label element in the page.
2. Place it and define its attributes.
3. Open the Action Window.
4. Choose the relevant options in the Source, Event, Target and Action fields.
   - Source: Active label 1.
   - Event: Action performed, for example Mouse clicked.
   - Target: Test 1.
   - Action: Show.

Web connection bean actions

Open URL, in order to open the link specified in the URL field of the Attributes window, you must create the Open URL action. See the Content Elements Attributes section in Chapter 6: Beans and content element attributes.

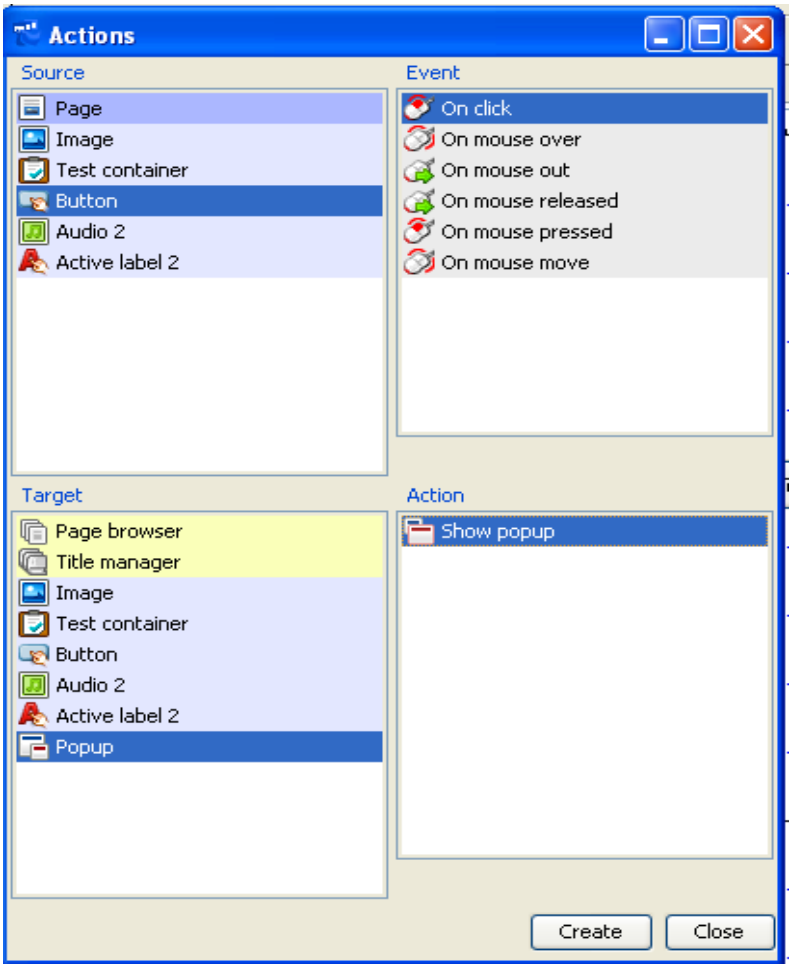
Example: How an action can be created so that the URL specified in the Attributes window opens when the contents of a page are loaded.



1. Open the Action Window.
2. Choose the Source, for example, Page 1.
3. Choose the Event: Load page.
4. Specify the Target, Web connection (name of the target element).
5. Choose the Action: Open URL.
6. Click on the [Create] button.

Pop-up Content Element actions

In order to show the windows created using the Pop-up bean, you must perform a specific action on an interactive element. This action is called Show pop-up.



Example: The following steps must be taken in order to show the Pop-up Window:

1. Insert the interactive element (for example a button) on the page that will be the source of the action.
2. Place it and define its attributes.
3. Open the Action Window.
4. Choose the relevant options in the Source, Event, Target and Action fields:
   - Source: Button 1 (name of the button element).
   - Event: Mouse clicked.

- Target: Pop-up 1.
- Action: Show Pop-up.

5. Click on [Create].

Timer Content Element actions

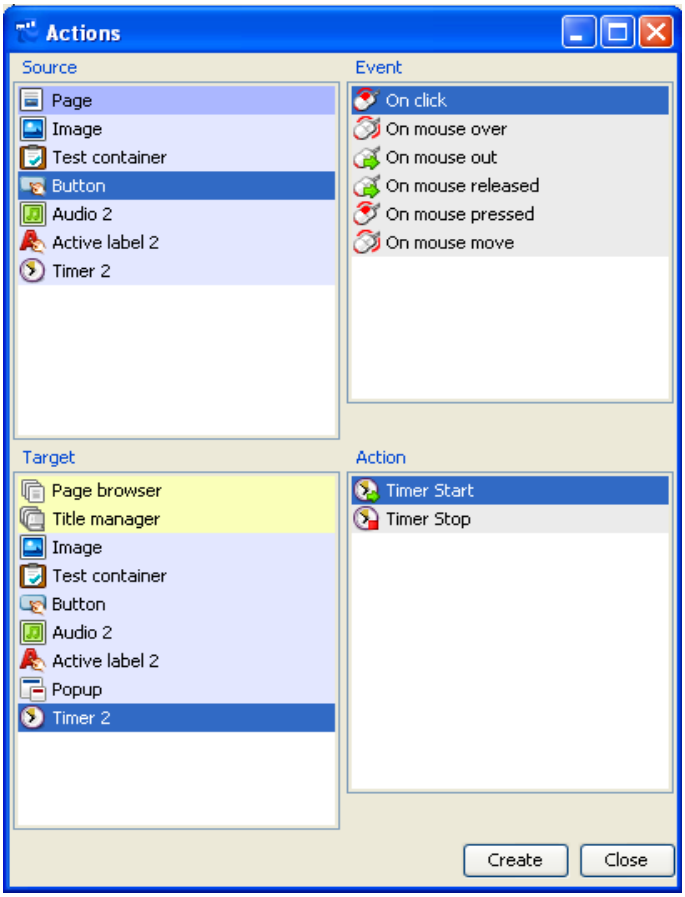
Start: This starts a timer, which counts the time specified in the Duration option in the Attributes window. See the Content Elements Attributes section in Chapter 6: Beans and content element attributes.

Stop: This stops the time specified in the Duration option of the Attributes window. See the Content Elements Attributes section in Chapter 6: Beans and content element attributes.

Example: How to use the timer bean. The aim here is to skip to another page of the Title when a button is pressed, not instantly, but after a certain period of time has elapsed:

1. Insert the timer element on the page.
2. Open the Attributes Window.
3. Enter the duration of the timer in tenths of seconds.
4. Open the Action Window.
5. Choose the relevant options from the Source, Event, Target and Action fields.
   - Source: Button 1 (name of the button element).
   - Event: Action performed.
   - Target: Timer 1.
   - Action: Start.

The timer will start when you click on button 1.



Now you must define the action for the desired page to open once the time has elapsed.

6. Choose again the relevant options from the Source, Event, Target and Action fields:
   - Source: Timer 1.
   - Event: Finish.
   - Target: Browser.
   - Action: Go to page.
7. Click on [Set parameters] and choose the desired page.
8. Click on [Create].

In this manner, when the time has elapsed, the selected page will open.

Test Content Element actions

Evaluate: This action allows evaluation of the test.

Evaluate only: This action allows the evaluation of the test, recording results without showing score to the final user. Utility of such register is that Title can have all this information attached in case we want to track the student. You can find more information in Chapter 11: Monitoring.

Emphasize answer: Changes text color of correct and incorrect answers, so the final user can become aware of their results.

Reset timer: Restarts timer so user has all the initially available time to take the test. Such action may be executed as long as timer is complete.

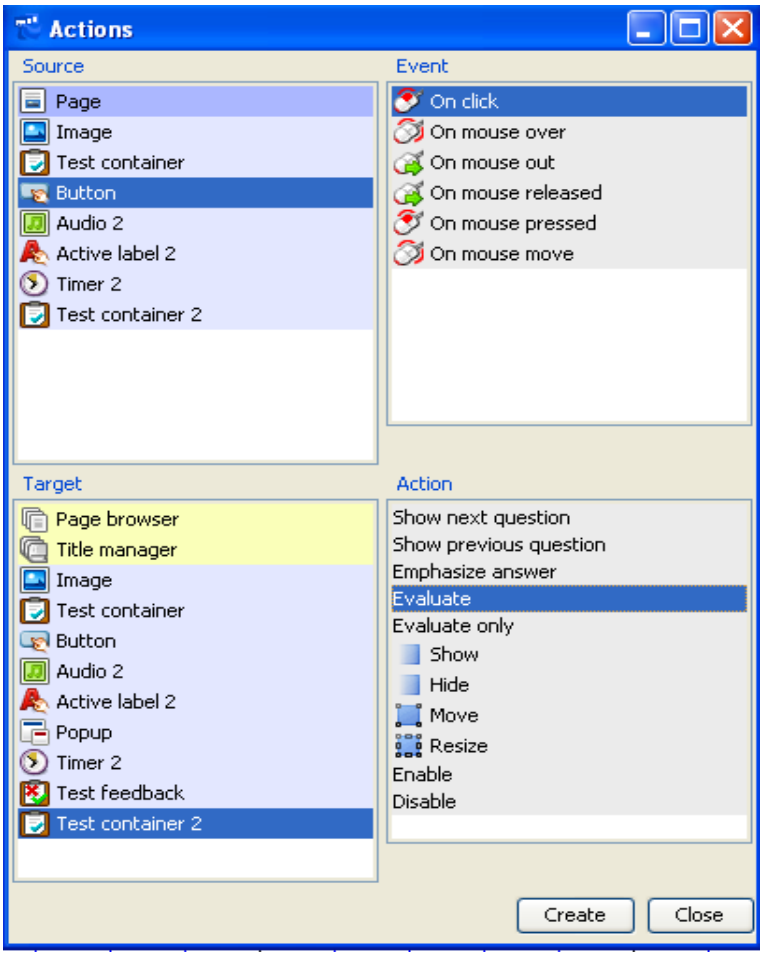
Show next question: When Test container only displays one question, it allows displaying next question.

Show previous question: When Test container only displays one question, it allows displaying previous question.

Example: The following example shows how an action can be created so that a test can be evaluated using a button. You can use the optional Evaluation button contained in the test element or create an alternative one, as shown in this section.

1. Insert an interactive element (for example a button) in the page.
2. Place it and define its attributes.
3. Open the Action Window.
4. Choose the relevant options in the Source, Event, Target and Action fields:
   - Source: Button 1 (name of the button element).
   - Event: Action performed.
   - Target: Test 1.
   - Action: Evaluate.
5. Click on [Create].

In this way, if you click on the button after selecting one of the test options, a message will inform you of whether the answer is correct or incorrect.



Page Browser actions

The Page Browser is an internal component that can be destiny of an action. Its main task is to manage different navigation actions in the Title.

Page Browser display following available actions:

Previous page	This goes to the page before the current page in accordance with the order in the table of contents.
Next page	This goes to the page after the current page in accordance with the order in the table of contents.
Go forward (History)	This action goes to the page after the current page following the navigation order used up to that moment.
Go back (History)	This action goes to the page before the current page following the navigation order used up to that moment
Go to page	This lets you set up links between two pages in the table of contents, the current page and the target page.

In addition, this link may be made in three different ways depending on the type of window in which the target page is to appear:

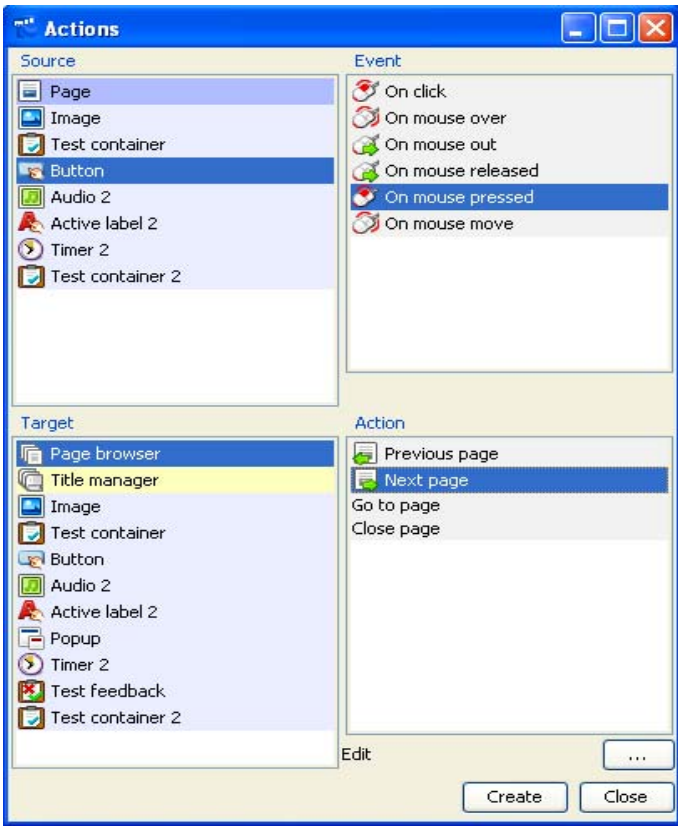
Show in the same window

The target page is shown in the same window instead of in the source page.

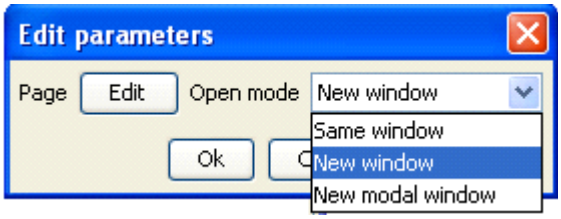
Show in a new window

The target page opens in a new window without closing the source page that was being viewed.

Show in a new modal window



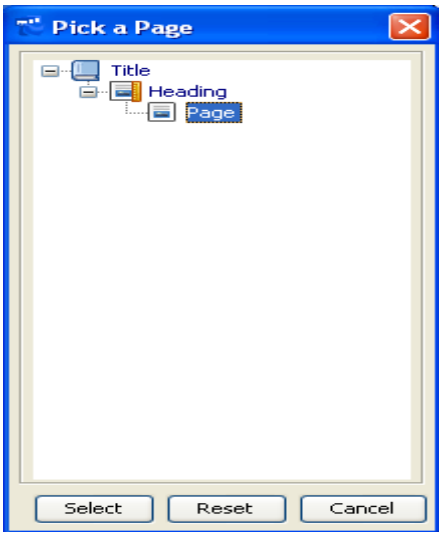
The target page is shown in a modal window that will be superimposed on the source page window. The modal window must be closed in order to interactuate on the source page.



Example: To create actions using the Page Browser we proceed as follows:

1. Insert an interactive element in the page, for example, a button (Button 1).
2. Open the New Action Window.
3. Choose Button 1 in the Source field.
4. Choose Action performed in the Event field.
5. Choose Page Browser in the Target field.
6. Choose Go to page in the Action field. The [Edit parameters] button will activate.

7. Click on [Set parameters]. Choose the desired window mode in which the target page will be shown, as explained above.
   - Show in the same window.
   - Show in a new window.
   - Show in a new modal window.
8. Click on the [Target page]. A new window will appear containing the Title's table of contents as shown in the figure.

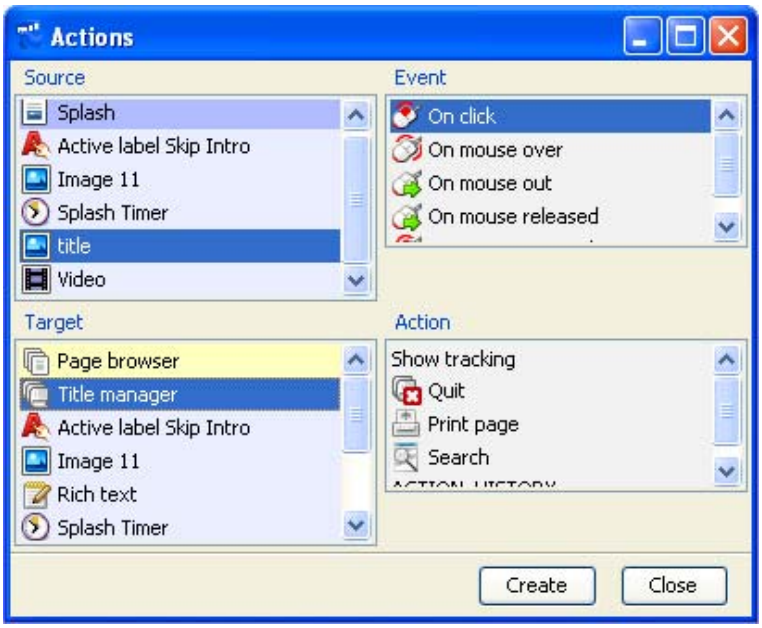


9. Choose the target page.
10. Click on the [Ok] button.
11. Click on the [Create] button.

Title Manager actions

The Title manager is an internal component that can be the destination of an action. Its main task is to manage following actions in the Title.

- Annotation page.
- Annotation manager.
- Search.
- Glossary.
- History.
- Print.
- Tracking.
- See tracking.



These actions lead to the opening of utilities, with the same name, intended for the final user, and that will be treated with more detail in the following chapter.

Title manager actions are, briefly described, the following:

Annotation Page

Opens a page that allows user to write a note, that will remain associated to that particular page.

(See section Annotations page in Chapter 8: The title manager utilities).

Annotation manager

Opens a page that allows user to write a note, that will remain associated to that particular page, similarly as we do with the Annotation page, but it also displays a list of all the annotations in the Title so you can access, edit or delete them.

(See section Annotations Manager in Chapter 8: The title manager utilities).

Search

Displays a window to the final user that allows him to search for text strings in the contemt of the Title.

(See section Search in Chapter 8: The title manager utilities).

Glossary

Glossary action opens a tool to not only know definitions of relevant words in the Title content, included by user, but also search for existing text strings related to them.

(See section Glossary in Chapter 8: The title manager utilities).

History

The History displays a list of the Title pages that have been visited, in the order in which the visits took place and with extra information, such as visit time and number of time that they have been visited.

(See section History in Chapter 8: The title manager utilities).

Print

This option, prints the content of the pages in the Title. Complete Titles or individual page can be printed. Only elements that have the printable option enabled in the Attributes Window will be printed. Therefore, when editing a Title, it is important to bear in mind which elements do not require printing and to disable them, since the Printable option is enabled by default.

To learn more about how to change attributes, please check:

(See section Content Elements Attributes in Chapter 6: Beans and content element attributes).

For more information about printing, please check:

(See section Print in Chapter 8: The title manager utilities).

Tracking

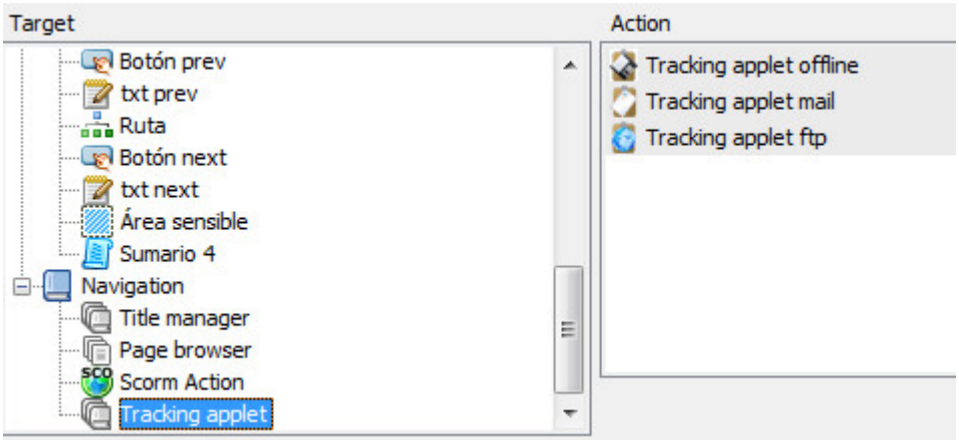
This action makes possible sending usage information regarding the Title to the course tutor or supervisor (test evaluation results, page visualization statistics, answers in open answer type tests, etc.) in order to keep a tracking record of the final user. Tracking can be sent to an FTP location or by email. In both cases it is necessary to define FTP server data or email server used data. Please contact your system manager if this data is unknown. Monitoring can only be used when content has been generated in HTML or HTML SCORM format and hung on a server with a running PHP.

(See more details in Chapter 11: Tracking.)

Tracking Applet

This option makes possible sending tracking in the same way than with the previous action, but in this occasion it is not necessary for content to be hung in a server with PHP, so that it can be used for contents in CD-ROM. It also allows saving tracking on your hard drive. It works as well in HTML an SCORM. In all these cases final user has to have installed on his computer browser tha Java plug-in.

To perform a tracking Applet action we will define the font and the event of the action and right after that we will select Tracking Applet in section Navigation in window Target.

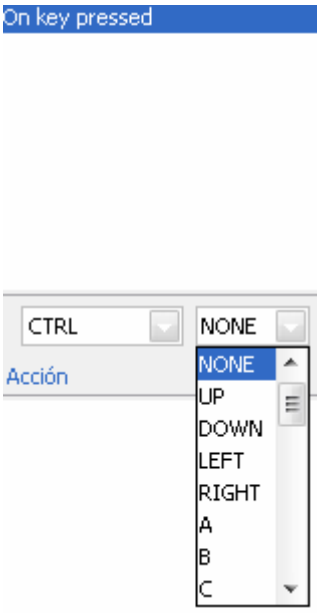


We can select saving tracking in a disc (offline), send it by mail or upload it in an FTP.

For more information: (See Chapter 11: Tracking).

Keyboard events in actions

It is possible to generate an action simply pressing a key, without having to interact with any content element. To setthis action, we have to select the page as the source and select action “on key pressed”.

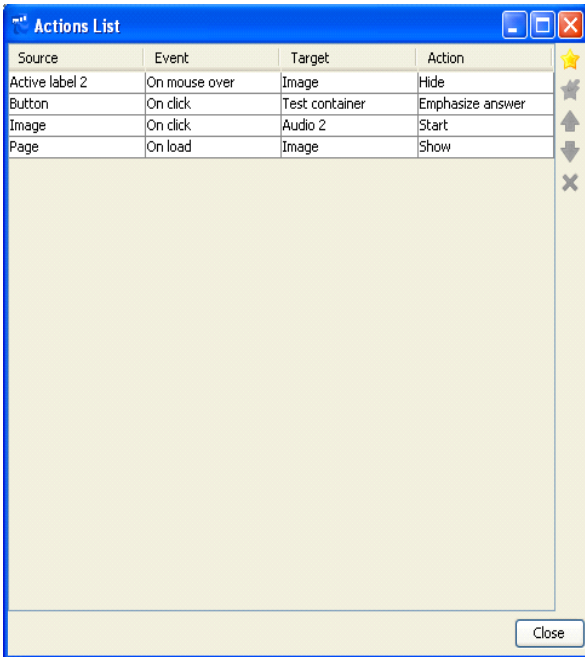


Using drop down menu on the left, we can define key combinations with CTRL, ALT or SHIFT. We can also define ESC key, although this option does not accept a second key. Using drop down menu on the right, we can define navigation keys (arrows) and any other letter. All these keys may be combined with those in the drop down menu (except ESC).

We cannot link actions to keys INTRO, SPACE or the Function F keys since they all interact directly with the browser. For this same reason, navigation arrows must be used only in pages without scrollbars. Same thing happens with common key combinations as CTRL + C. In case we use them for an event, they would execute the action while trying to copy a text or a page element. It should also be noted that if we use a letter as an event and then we press that key to introduce a text in a form field, for example, action would start. That is why it is avisable to use key combinations that are not commonly used.

7.5 The action list

The Action Window makes it possible to see and edit the entire list of actions inserted, including pages in use, showing the following parameters: source, event, target and action. Any of them may be edited an deleted. New actions may be created as well.



In order to open the Actions list window we have to select the menú option:

Object > Actions list

Or click on the corresponding icon in the buttons bar:

This window displays the following buttons:

New Action: Opens the Actions window in order to permit the new actions creation

Edit: Permits editing the selected action in the list. The Actions Window will display with the fields Origin, Event, Target, Action and the desired parameters can be set.

Move up and move down: This lets you set the order in which two actions will be performed. These buttons will only be active when the same event is performed in a content element

Delete: Deletes the action selected in the list.

7.6 Use of variables in EasyProf®

The Variable is a new element in EasyProf®3 that enhances its possibilities giving extra power and versatility. It is displayed in a new button in the toolbar named Variable Manager. We also find a new button in the content element bar named Textfield that allows us to display the value of a variable and give it a new content. Using variables we can work with numbers or texts and can make them interact by the use of actions without any need tp write a programming code. In fact, this component will allow us to obtain the same results that we would get using a basic programmimg code but without the need of learning or writing a single line of code.

Basic concepts:

Variables are commonly used in computers and are a key element when programming as they enable you to create many applications. EasyProf® 3 offers the possibility to use them and exploit all the power they offer without the need of learning s programming language, simply using the action editor that has been available in last versions of the program. Variable's strength is that, as its name indicates, its value may vary depending on the criteria defined in the actions and it can keep on changing along a project depending on what the user does.

Variables could be compared with data containers. We can assign them a starting value or create an action to assign them a value or to modify the one already assigned. Similarly, we can create actions that start when a certain variable reaches a particular value. We may as well create an empty variable intended to enter user's name in it. We can show that name anywhere in the project. We can create, as well, counters that increase their value each time user completes a certain action and that once this value reaches a preset value, an action is performed.

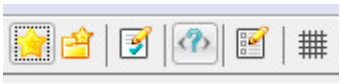
Traditionally two types of variables have been used. Numeric variables, which allow us to work with numbers, and Text variables (or string) which allow us to work with strings of alphanumeric characters (numbers and letters). We should make a distinction between these two types of variables because its use will let us perform different actions. Text variables are used to display texts or numbers that we may want to use in different moments of the project. Moreover, numeric variables allows us to perform more complex as well as simpler operations (addition, substraction, multiplication...).

To work with variables we must always start by defining them, ie: giving them a name that will allow us to recognize them and choosing which type of variable they are (numeric or text). In EasyProf®, in addition, we define another important feature depending on where we are going to use it. That is how we can create Page or Title variables. Page variables can only be used in the page where they have been created but Title variables can be used in any page of the project. Supposing that we create a Title variable that gets its value attached in project's first page, we can use it in any other page (including pop-ups). For any variable we can decide to give it an initial value or leave it empty and give it a value later on in the project.

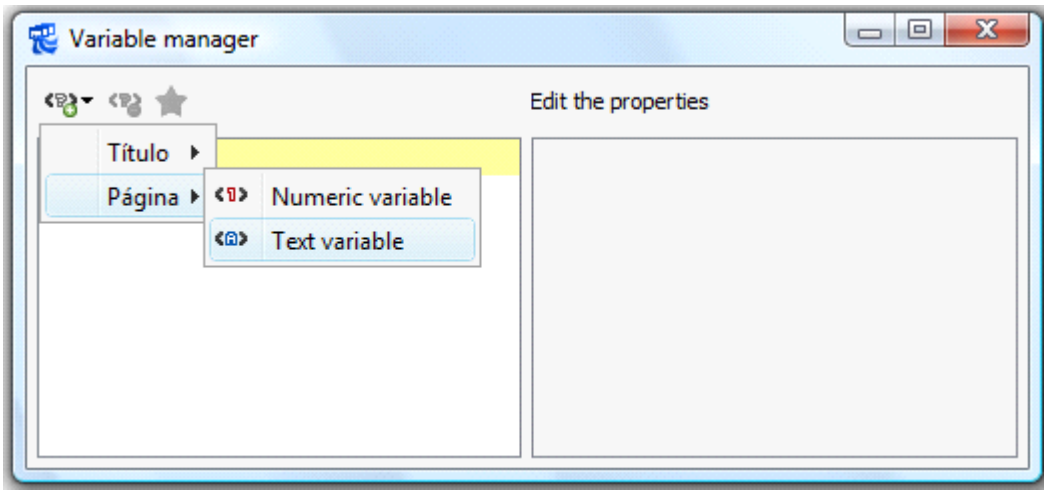
Variables in EasyProf® may be both source and destination of an action. That means that we can define an action that modifies the content of an action or we can perform an action that will start when a variable reaches a certain value. This allows us, for example, to define that a variable may change its value each time the user passes a test or to display an item only when such variable has reached a predefined value.

Mode of operation:

Use of variables implies the use of two new buttons in EasyProf®. In the Toolbar we find a button which opens the Variable Manager.

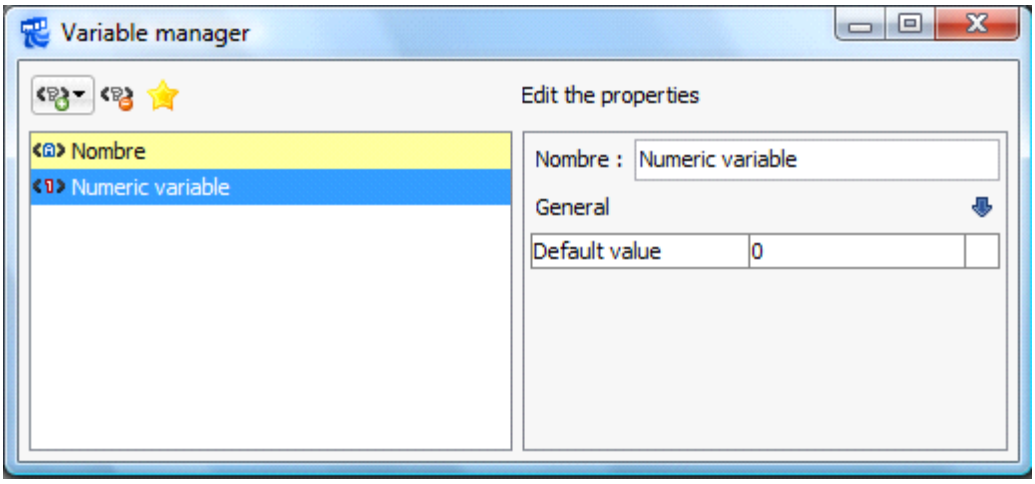


From the Variable Manager we will define variables, indicating their name, variable type (numeric or text, Page or Title) and their initial value.



Pressing button Add variable will unfold a menu that will allow us to select if the variable will be used in the whole title or in a particular page. Title variables allow user to use its content anywhere in the project while Page variables lose its changes when user changes screen. In case we want to reuse the value of a variable in several places of a project, we'd better use a Title variable. In both cases we may define if the variable will be numeric or text. Numeric variables will only allow numbers as content, while text ones allow letters, numbers and symbols (like the euro symbol).

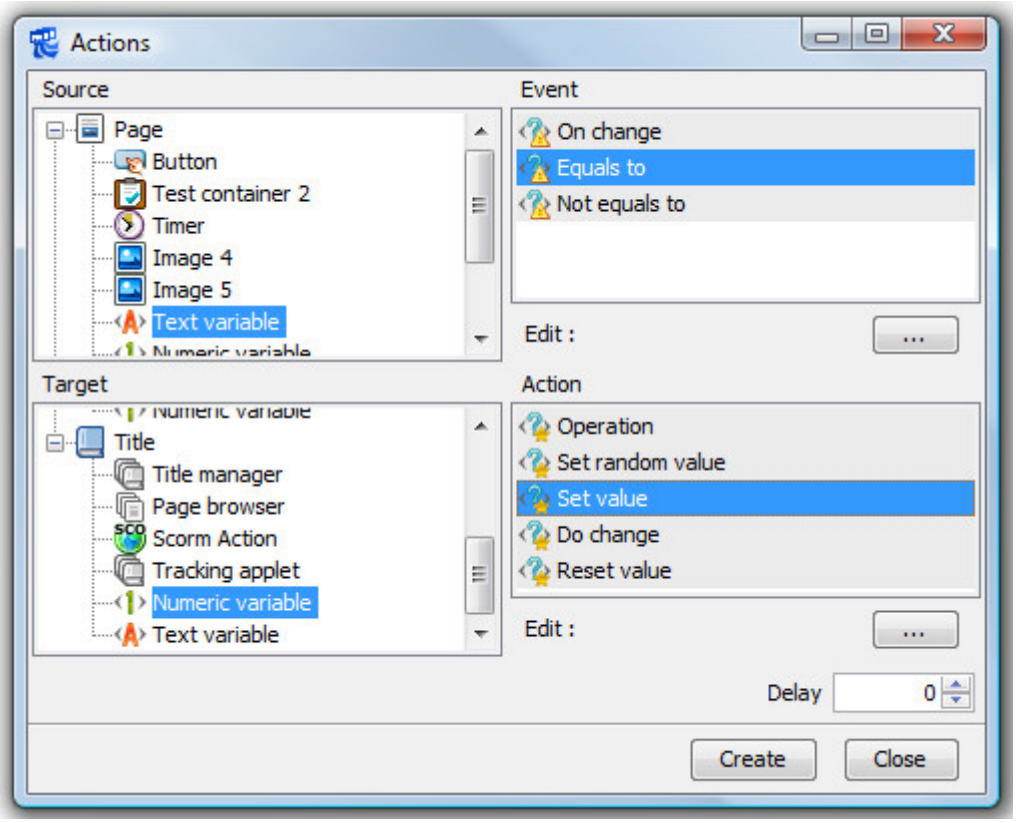
Once a variable has been created we may define its name and its initial value. It is advisable to customize variable's name to distinguish more easily later on. Text variables may by default have no content, but numeric ones can't. In case of no defined content, 0 will be used as default value.



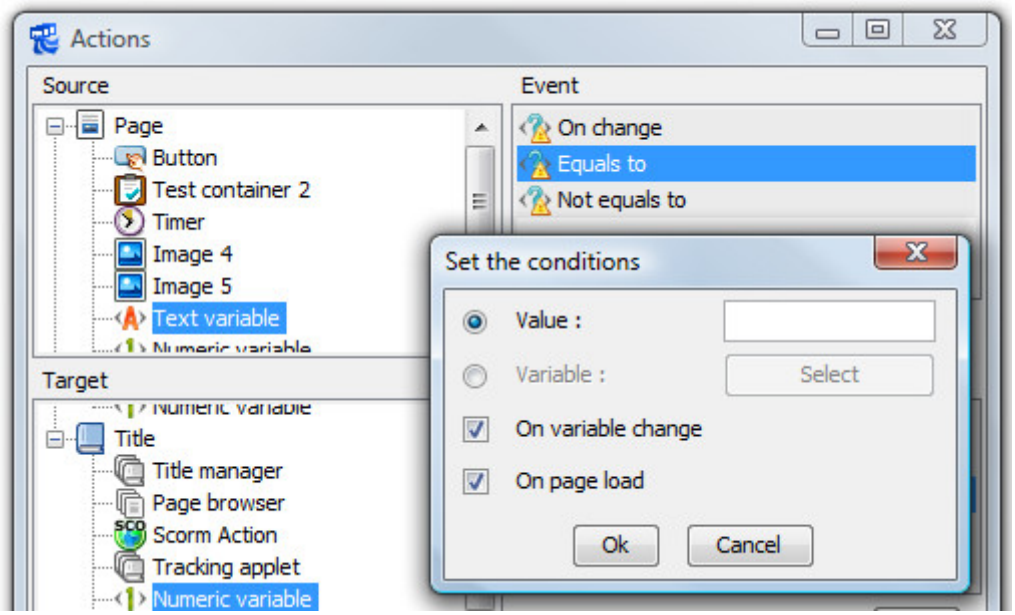
In addition to button Add Variable, we find another one to Erase them and a third button to create an action from the selected value.

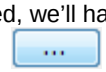
Working with variables (Actions):

Once a variable has been defined, we can interact with it through actions. Any variable may be both source and destination of an action. When opening the Action manager, we see that the Source ection displays a tree with two branches. Page section displays all the elements found in the screen we are in, including Page variables. First section, Title,displays Title variables.

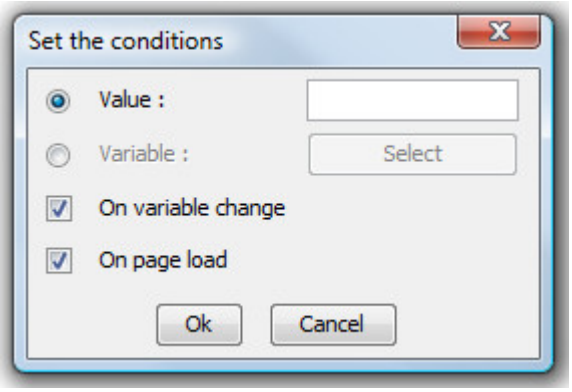


When selecting a text variable in Event section it displays three options: On change, Equals to..., Not equals to...



If we select On variable change, action will start every time the action value changes. If Equals to... selected, we'll have to choose the value the variable should have to start the action. To do so we press button  and write the chosen value. In case we select Not equals to... we will have to choose a value as well. In this case, action will start whenever variable value will differ from the chosen value.

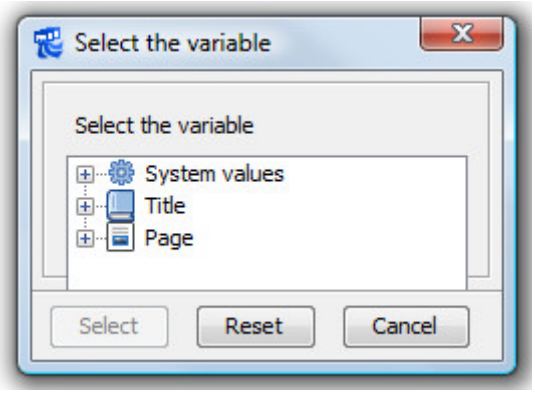
In case we select a numeric variable, we face two possible events. On change, everything works exactly as with text variables, but instead of having 2 more options (Equals to..., Not equals to...) we only have one called Conditional which allows us to decide the type of necessary condition to execute the action. If in text variables there were only two options, in numeric there are many more. To view them we will edit condition's properties by clicking on the button with the three dots.



Available options are:

=	Equal to	Action starts if variable has the same value than chosen value
<>	Not equal to	Action starts if variable has a different value than chosen value
<	Less than	Action starts if variable is less than chosen value
>	Greater than	Action starts if variable is greater than chosen value
<=	Less than or equal to	Action starts if variable is less than or equal to the chosen value
>=	Greater than or equal to	Action starts if variable is greater than or equal to the chosen value

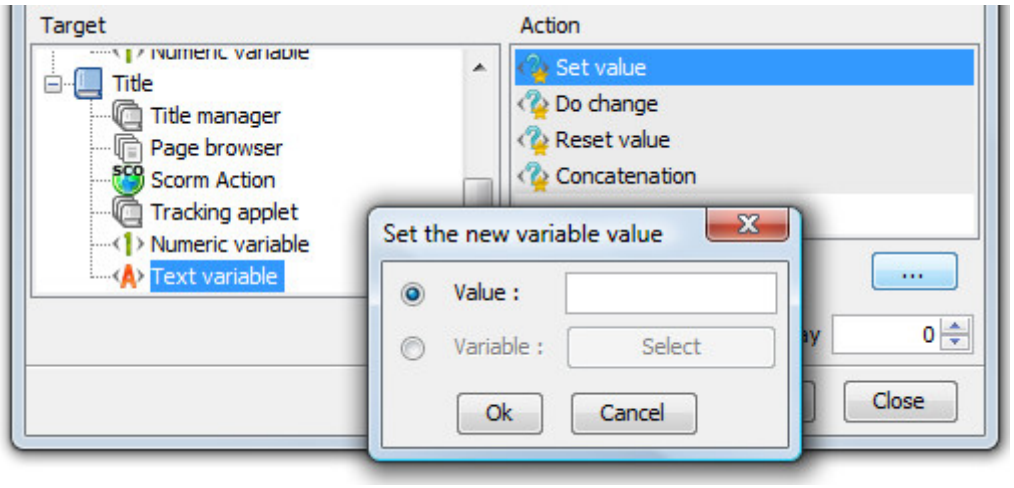
Besides choosing a value for comparison, we may as well compare it with another variable. To do so, select option Variable and click on Select button. Screen with all available variables for comparison will appear, we only need to choose the desired one.



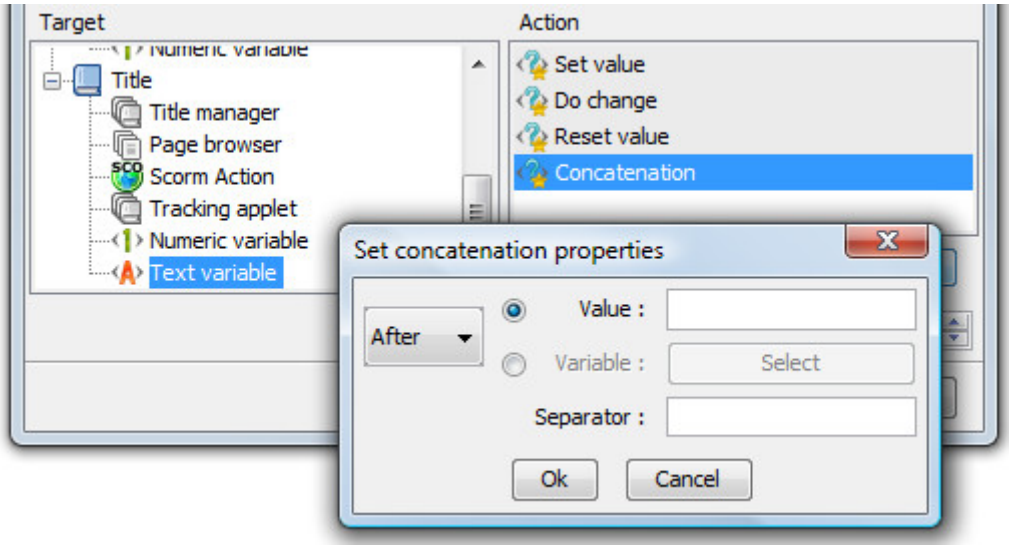
Once we have defined the value for the condition, two new parameters can be defined. If we select On change, the condition will be checked each time variable value changes. If we select On Load, condition will be checked each time the page is loaded. These two options can be chosen simultaneously, having a comparison done each time the page is loaded and each time the variable value changes. It is important to keep in mind these two properties, because the application always needs to know when is necessary to compare the condition. If we want an event to happen when a variable reaches a particular value, we must select On variable change.

Variable may as well be target of an action. In this case, we'll use as origin of the action any interactive element such as a button (a we have seen, another variable). We'll decide the event and finally we'll select the desired variable in Source section, showing us a tree with all Title variables an Page elements. All available options depending on the type of variable will be displayed in the Event section.

If we face a text variable, a new value can always be defined. It will replace the previous.



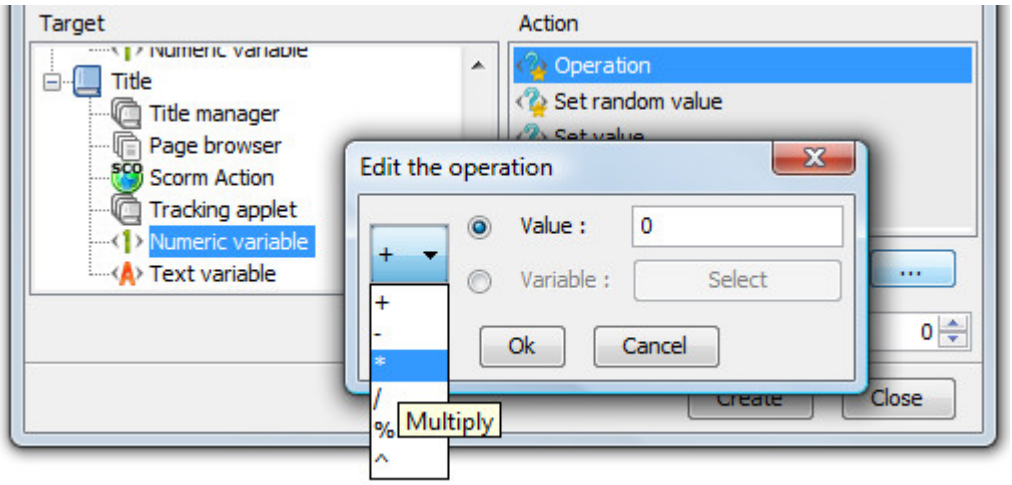
We can also concatenate another value. That is, adding a value before or after the default variable value.



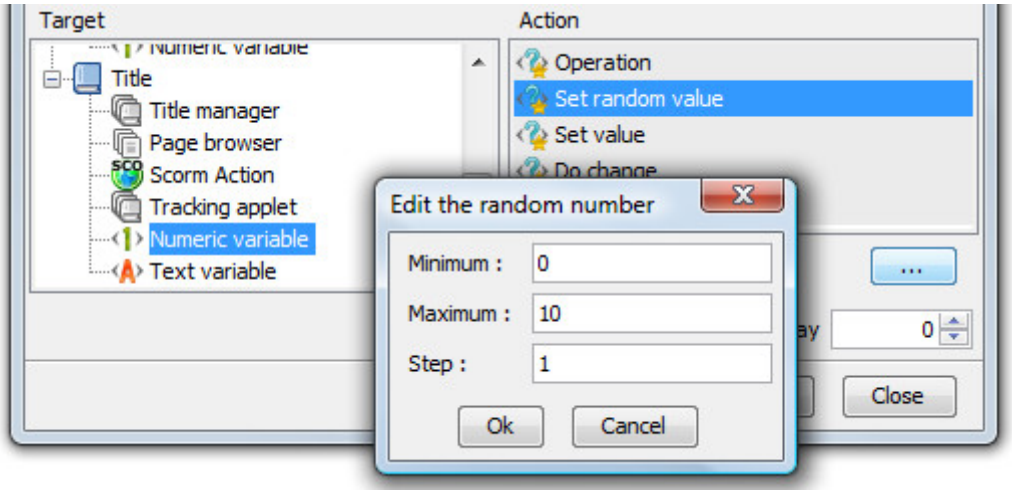
In this case, we can assign it a specific value or another variable value an choose whether we want that value added before or after. A separator can also be defined between values, as for example an empty space, a comma, or any other symbol. Concatenation is used to create records of values. We can, for example, create a variable that will contain the results of each test done. To do so, we would create an action that would concatenate words Passed or Failed depending on the result of the test each time a test is performed. Upon completion of the tests we would have a list with all reults obtained by the user.

Last available option is called Do change. We use it when we have already defined a conditional event but no comparison has been indicated On change or On Load. In this instance, we must add an action with option Do change to establish the moment we want this comparison to take place. Let's imagine that we have introduced several exercices in a single page and we have created an action that will add 1 to a variable each time an exercise is correct and will substract 1 each time it is wrong. We want our user to be able to acceed next page only if at least half of the exercises have been correctly answered, that is to say when variable value is positive. By selecting option On change, first time that an exercise is finished, value will be positive and there will have been a change, so user will be allowed to acceed next page before finishing all exercises. In this case, we should deselect option On change and instead we will add a button that will appear after completing last exercise. This button will start action Do change that will check, then and not before, value of the variable. That is how we can control exactly when a comparison must take place.

Do change option is available as well for numeric variables. It works exactly the same way than with Text variables. Similarly, we can assign a new value to the variable, but in this case, we can give it a fixed value or we can assign it the value of another variable. Finally, we have two specific actions only for numeric values. First one is called Operation and enables us to operate with variables. We can perform several operations with both fixed a fixed value or a variable value. These options are Adding, Substracting, Dividing, Multiplying, Percentage and Power. By doing so we can perform the four basic operations with variables, calculate a percentage or raise a variable to a certain power. All these values we use for our operations may be fixed values, predetermined by the editor or may come from other variables.



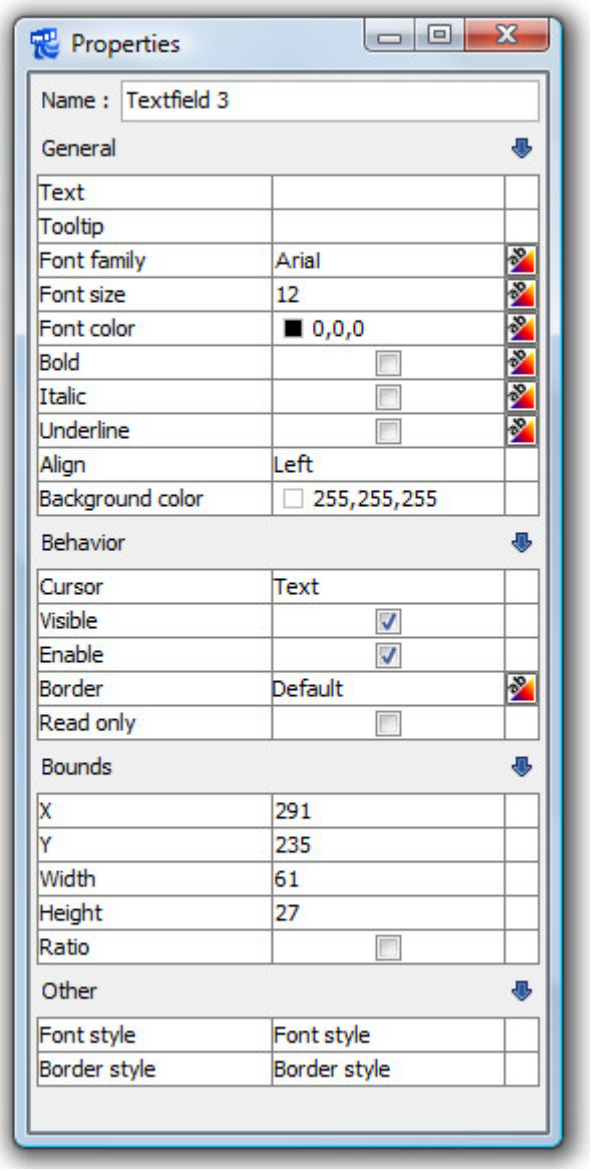
Last possible action related to numeric variables, Set random value, is similar to Set value, although in this case set value is done at random. Random values are used to create interactive games. Sometimes we want the system itself to generate a random number. In this case we can define some basic parameters as minimum and maximum value for this variable. There is a third parameter that allows customization that is called Step and will let us define more precisely how this random number must be generated. If we have for example set a minimum value of 0, a maximum of 10 and a Step of 1 (all these are default values), this means that the number assigned by the system will be a positive integer between 0 and 10 (both included). That is: 0, 1, 2, 3... 10. However, if in Step we select 0,1 system will create decimal numbers: 0; 0,1; 0,2; 0,3... If in Step we select 0,01 we will have two decimals: 0,01; 0,02... If instead of a decimal cipher, what we want are even numbers, we must write 2 in Step. If we want only odd numbers, we must keep 2 in Step, but change minimum value for an odd number (for example 1).



Display of variables and manual entry of values

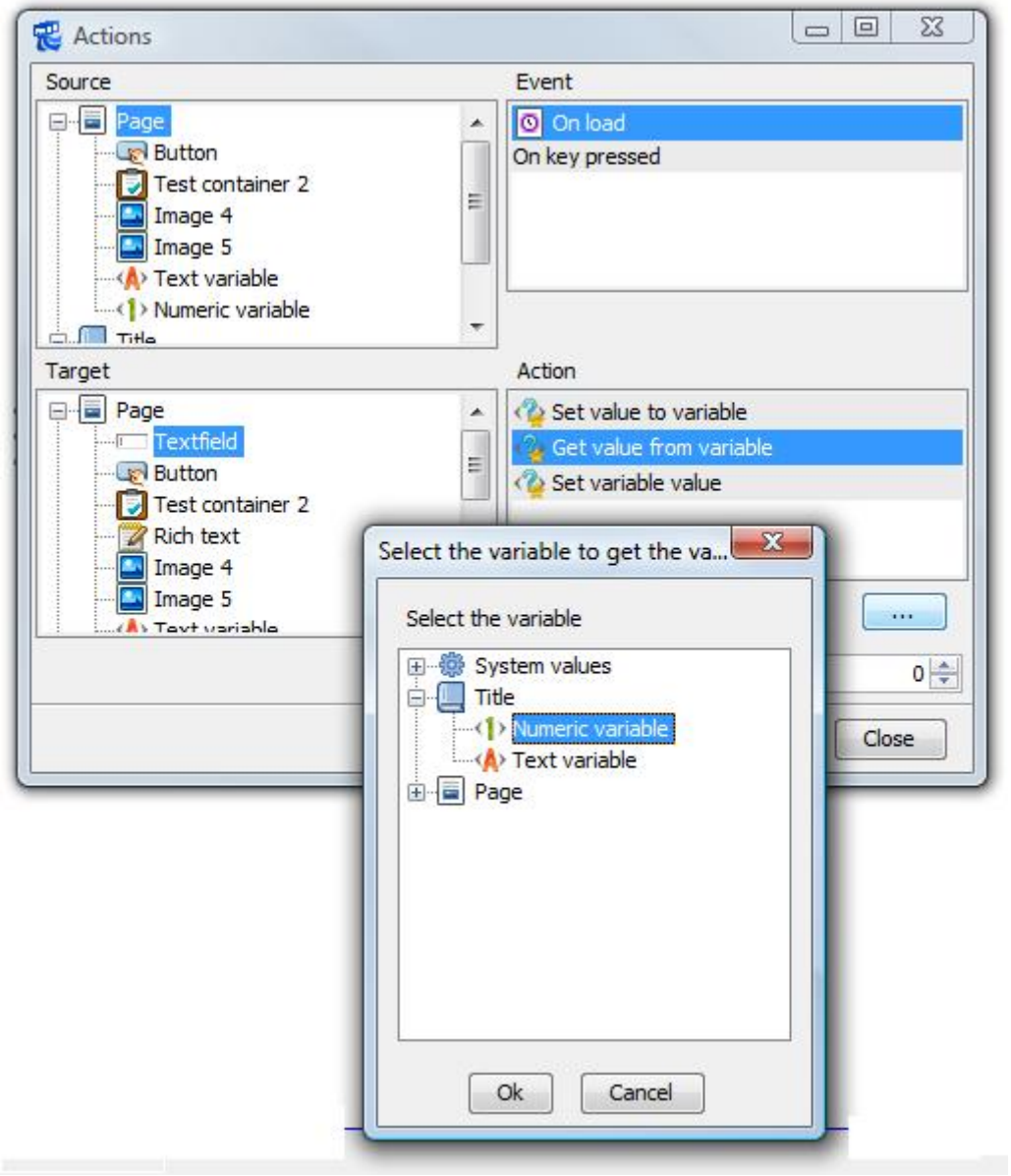
With what we have seen so far, we can already use variables to perform complex actions, but at some stage we may want to display the value of a variable or allow user to manually enter the content of a variable. We will use content element Textfield to do so.

To introduce a Text field in a Page we only have to click on the Textfield item in the Content Item bar.



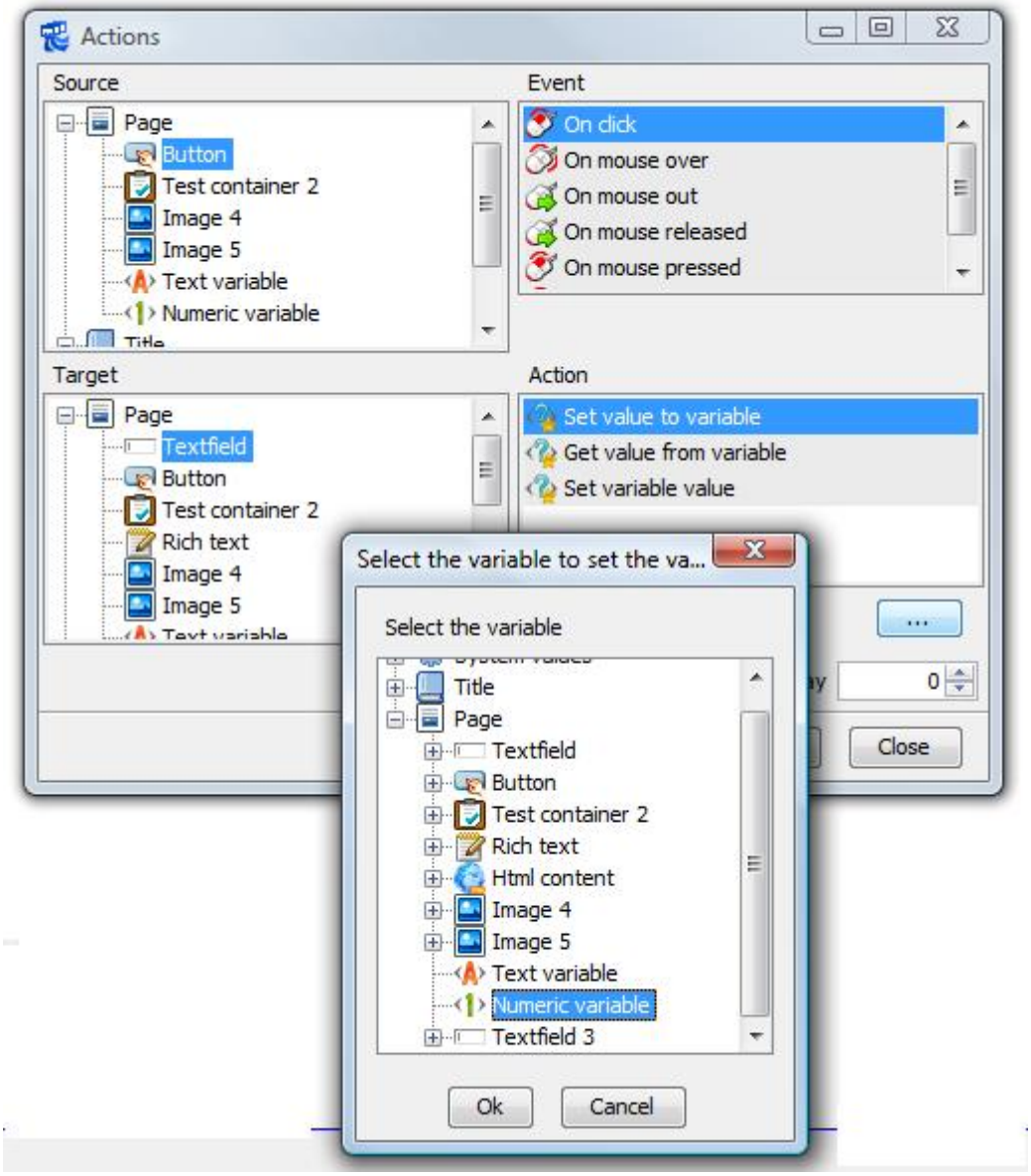
Its properties are the same as those of the Richtext so we can modify style, color, fonts... But unlike the former, this one allows user to introduce text and relate it to variables through actions.

Thus we can define a Text field to display content of a particular variable. To do so we use the Action Manager. We'll start by deciding when will the field show variable content, we'll do so from the Event section. It can be displayed, for example, when clicking on any active element or when page loads.



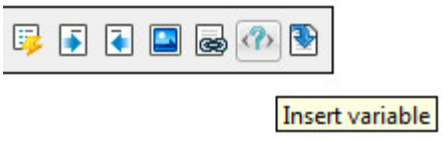
In Target select the text field that must show variable's content and as action we select Get value from variable option. Clicking on button with three dots we can choose from which variable value must be taken.

If what we wish is for user to manually enter a value in a variable, we must first decide the event we will use to decide when that content has to be entered. For example, clicking on a button. In Target we choose the Textfield where the user will write it and we'll select as action Set value to variable. Again we'll select to which variable will this manually given value go.

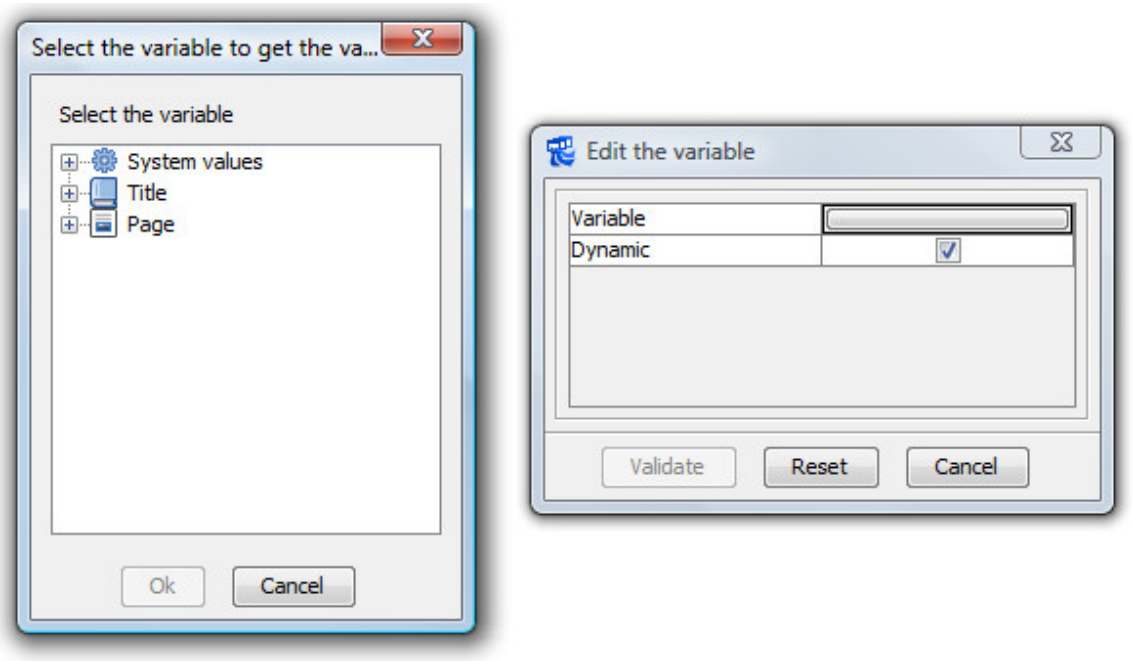


Display variables in Rich Text

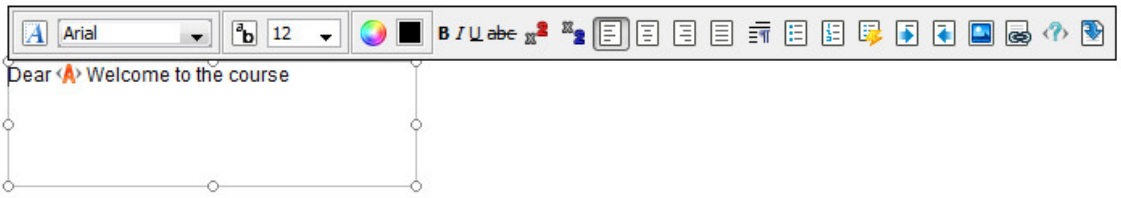
We can also display the content of a variable within the Rich text. In the editor we find a button to insert variables.



When selected, a window with two options opens. First one displays a variable tree, including those specific of the page as the ones of the Title. Second option is called Dynamic and refers to how will the variable be displayed. If we do not select this option, variable will be displayed with the value that it has at the moment of loading the page and it will not change. If, however, we select Dynamic, each time variable value changes, Rich text will be updated.



In the Rich text editor will appear an icon identifying where is the variable located. By double clicking on the icon selection window will open again.



It is important to keep in mind that the length of a variable changes depending on its value. In most cases, the space that will fill a variable after it gets a value, may be different from that of the icon. We should consider this particular feature when defining the size of the text frame, because if we make it too tight and then variable is bigger than expected unwanted scrollbars may appear.

Use of the system value

When we have to assign a value to a variable using actions we can use not only the value of another variable or a text entered by user, as already described. We may also use values provided by the system itself. The way to introduce them is the same than when we asign a value from another variable. In this case appears a new group called System values.

System values that we can use are:

- Name of the current page.
- Number of the current page.
- Total number of pages in the Title.
- Number of visited pages.
- Number of printed pages.

Examples of functionality of Variables

Possibilities that variables provide are virtually unlimited. We can create with different Textfields an initial form to be filled by user with its data. As he progresses through the content, we can use data such as name to further customize the navigation or condition acces to certain elements depending on age. We can also create different counters to display the number of visited pages (creating a vaiable that adds one each time a page is loaded), number of tests performed, passed or failed... We can also set a maximum and minimum number of times a certain content must be seen before hidden elements are shown... Using random value options and operations, we may create interactive games such as guessing a random number (counting number of attempts), add coins, dice games... All this by generating actions in four very easy steps an without having to write a single line of code.

8. THE TITLE MANAGER UTILITIES

8.1 Including utilities in a Title

In the previous chapter we mentioned that EasyProf® has got a Title Manager with a series of actions that can be incorporated in a simple way through the actions generations procedure. Some of them can be named “utilities”, as they permit opening small applications especially oriented towards the end user, and they offer him or her a better advantage in the Title‘s use.

Utilities offer a major service when they are available in a more or less extended area of the Title. For instance, it is correct to make the Glossary access possible from all the pages that have got a textual content of special relevance in the Title. It is the reason why utilities should be called by actions associated to elements that are preferably located in Master Pages.

The EasyProf® utilities are:

- Annotations Page
- Annotations Manager
- Copy Page
- Search
- Glossary
- History
- Print

Example: An example oh how to incorporate utilities in the Title is:

1. Create a Content Element in a page, for instance a button (Button 1)
2. Open the window New Action
3. Select Botton 1 in the Source field
4. Select Action completed uin the Event field.
5. Select Title Manager in the Target field.
6. Select the desired action in the Action feld.
7. Click on [Create].

Some actions from the Title Manager show some differences in the aspect of their windows according to the way the Title is published in one or another output (CD-ROM or Web). Thus, in the Web publications the windows will not show any tab, because of limitations inherent to HTML language and the browsers themselves. In this chapter appear some images from the utilities windows in several publication formats, so that the user can have a first comparative idea.

For more details about Title publication formats please consult Chapter 10: Titles Publication.

8.2 Annotations

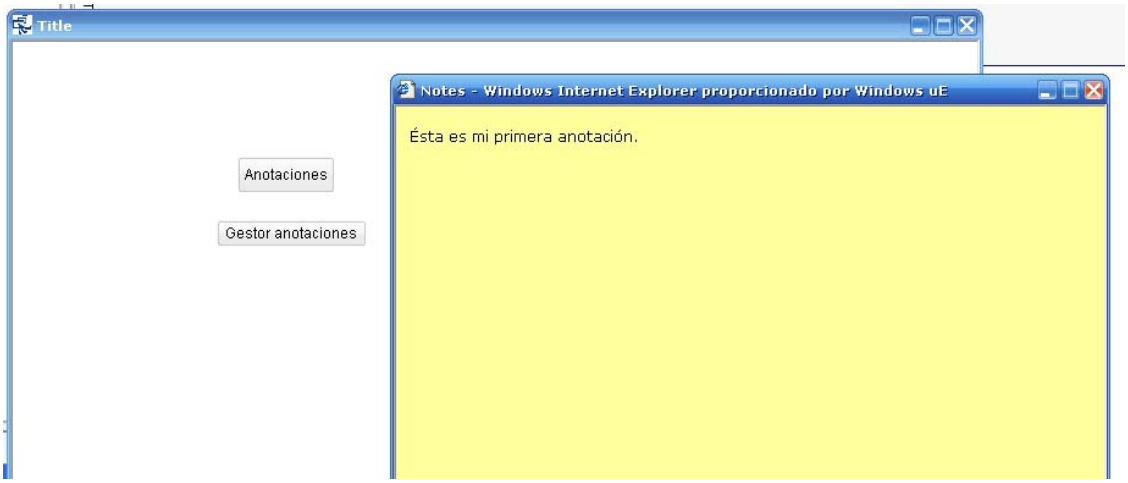
To manage his annotations, final user has two utilities, opened using their corresponding actions:

- Annotations page action: We can enter notes associated with the page.
- Annotations manager action: Allows us to manage all notes in a Title.

Such utilities are generated from the action editor.

Annotations page

When Annotations button is clicked, final user can write his annotations directly in the Annotations page. Only one note per page is admitted, but it can be modified as many times as necessary.



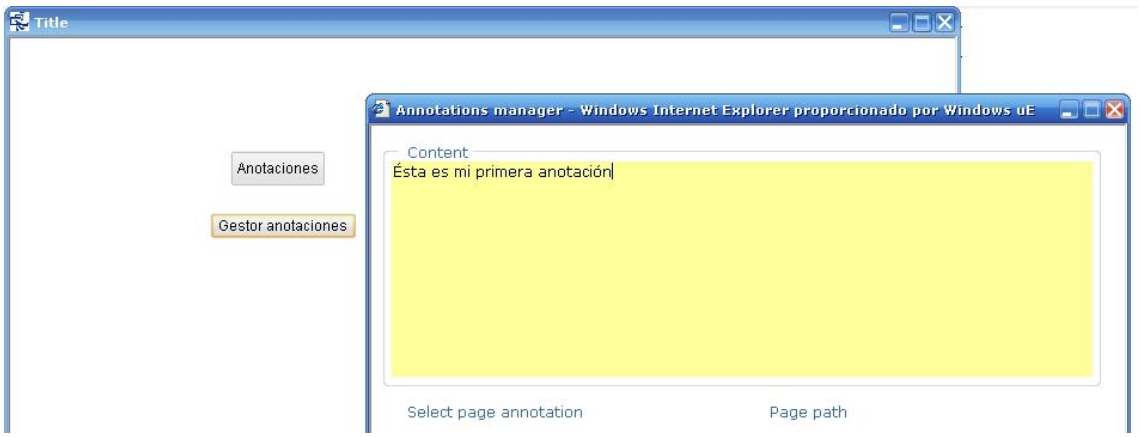
To close the Annotations page we must click over button [X] in an upper- right position, keeping the content stocked for a posterior use.

When opening again the annotations page in a page in which a note has already been inserted, this note will display and can be edited. In order to delete an annotation you must open it and delete the text.

Annotations Manager

It permits managing the whole Title annotations.

In the < Content > field you can see the notes associated to the current page, as well as edit them. Under the content field, on the left, you can see the < select annotations page > with a list of all the pages that contain annotations. By selecting any of them one can see the path of this page in the < path > field. By clicking over this path one accedes to the page where the annotation is.

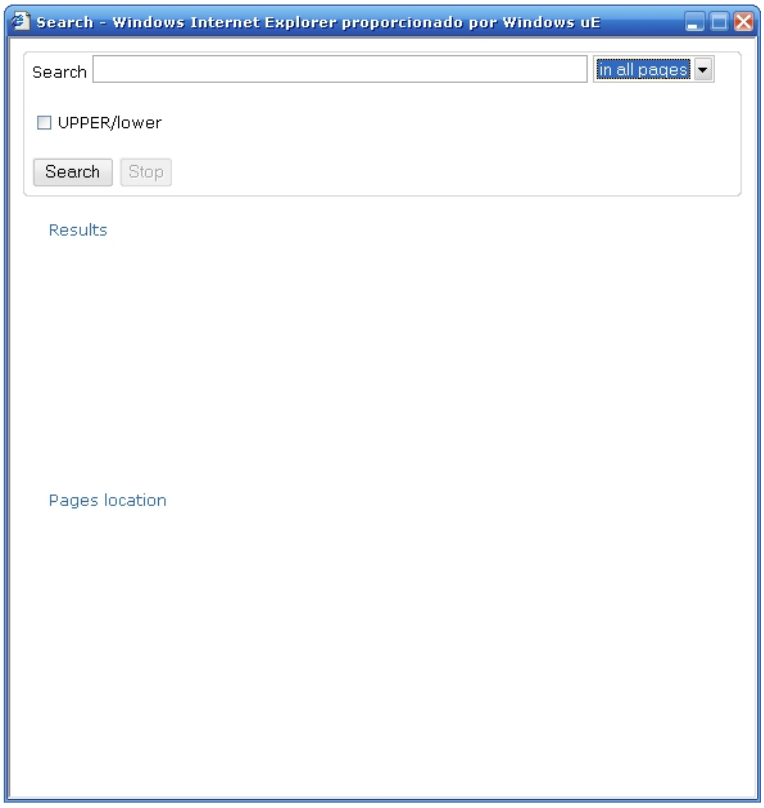


NOTE: Annotations realized by the end user are stocked in his/her local system. For this reason if he/she opens the Title from another computer those notes will not appear. Also, the note could avoid to appear if they are opened from another browser of the same machine, since the storage system is associated to the browser

The procedure for creating actions that will open those utilities can be deepened in Annotations Page and Annotations Manager from Chapter 7: Actions and Interactivity.

8.3 Search

With the Search utility the end user can look in any text chain that finds itself in the Title. As the other utilities its insertion in the Title is performed through the corresponding action on the Title Manager. After the utility has been opened the final user is able to see the search window with its options.



Search

The searched chain is introduced into < Search > field, with the following delimitation options:

In all its pages: will look in the word in the whole Title

Uppercase / Lowercase: if you select this option the searcher will consider the capital and small characters use that he/she has inserted in the < Search > field. On the opposite side, it will ignore them, allowing wider results.

In order to begin the search the end user just has to click over the Search button.

Results

The results of the search will then be displayed in the < Results > field. A list of the pages containing the searched words is displayed. By selecting one of the words the < Page Path> will show its path in the Table of Contents.

For more details about the action that opens the search utility you can consult the search paragraph in Chapter 7: Actions and Interactivity.

NOTE: the search engine integrated into EasyProf® only shows the result of texts included in the Rich Text, Label and Active Label content elements. .

8.4 Glossary

It is frequent that this utility is called by the final user from different locations of the Title. Its characteristics are the following:

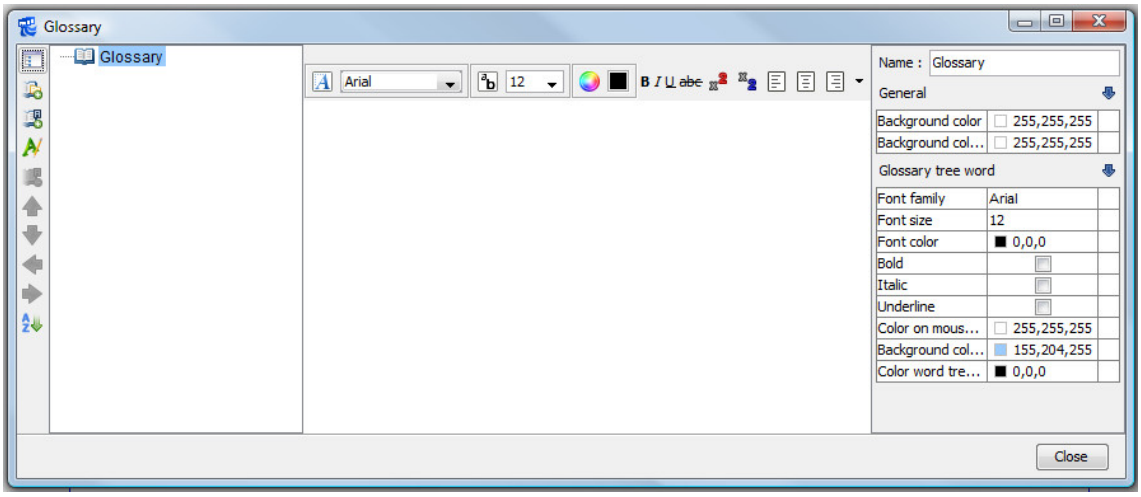
Creaction/edition of a Glossary

The Glossary terms and their signification can be introduced and edited by means of the Window > Glossary menu option.

The Glossary editor:

The Glossary editor is divided in two parts: in the left-hand side column we can find a tree with the structures of the glossary. Over this structure we find many buttons that allow us to show or hide the TOC root, create new groups and new words, edit a group name or word and delete the selected group or word. There are also four arrows used to change the position of a word as well as assigning it or excluding it from a group.

In the right-hand size column appears a text editor in which we will write the term definition.

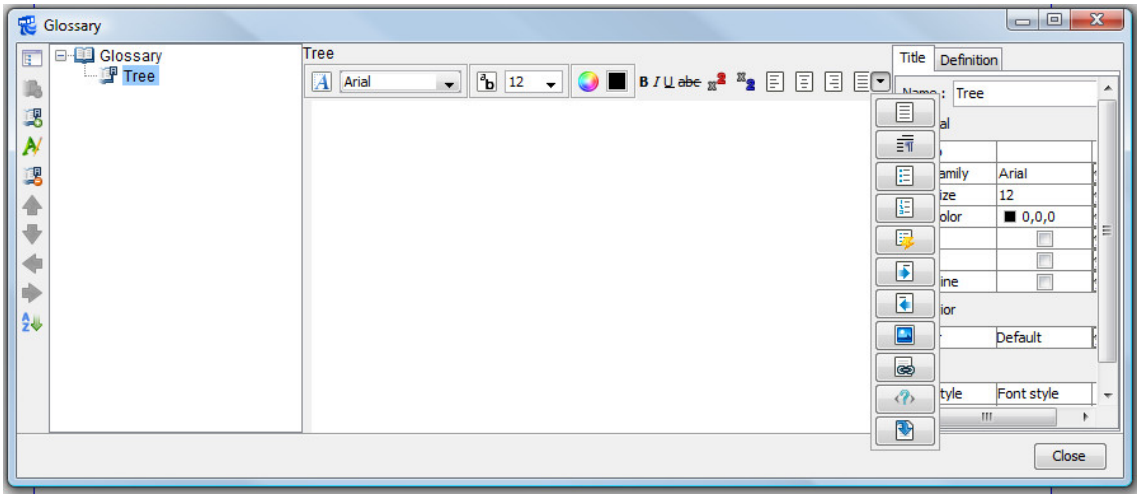


Placing ourselves on top of the Glossary root we can edit, in the right column, its properties. In addition to the usual properties of a font, we can define the color it will have when mouse over, background color when it is selected and color of the actual text of such word.

New caption introduction

In the left-hand side column, click over the New Word button. The new term will appear in the Glossary tree. In order to edit the word you must double-click on it in the tree

In the right-hand size column, introduce the term definition. The editor works the same way than the Rich Text editor, except in what refers to styles. You can introduce images and links, as well as lists, bolds, subscripts and superscripts.



Caption edition

In order to edit another Word definition you just have to locate yourself over the new term in the Glossary tree. The edited definition is automatically saved when selecting a new Word.

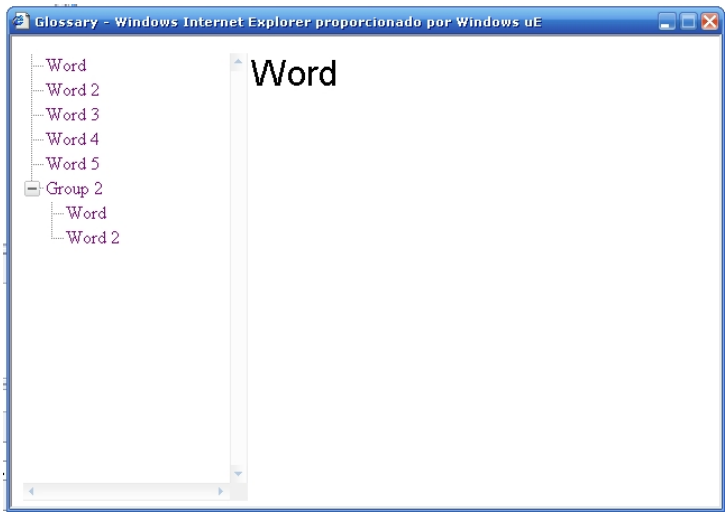
Groups

The captions can be grouped. If no group is selected they will be created ny default in the generic Glossary group. For creating a new group you must click over the button [New Group] located over the glossary tree. The following terms captions will be added to the group which has just been created, except if another one has been selected for it.

Use of the Glossary by the end user:

In order to allow the end user to manage the glossary, this utility has to be launched with the help of its corresponding action (see Glossary action in Chapter 7: Actions and Interactivity), that will open it.

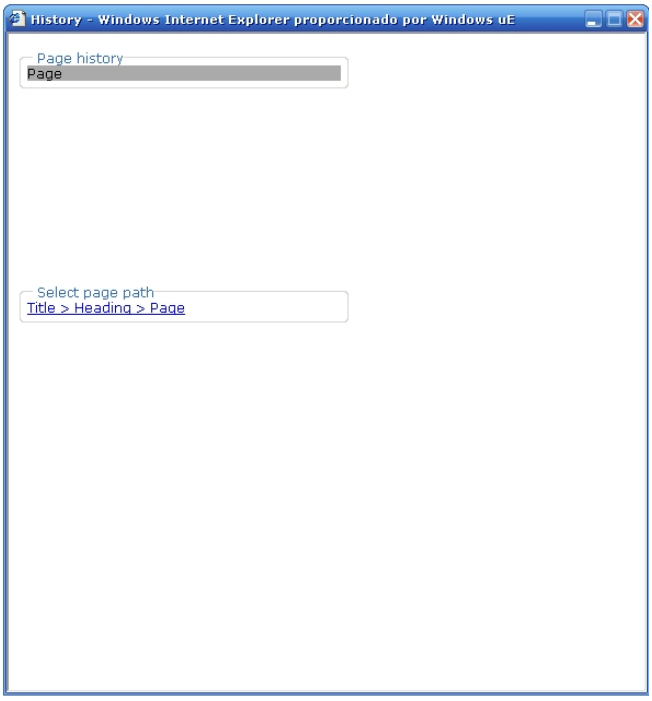
A window with two fields will be displayed. In the left-hand side one the Glossary tree will be shown. Clicking over any word its definition will display in the right-hand side field.



8.5 History

In order to indicate the final user which pages he has been visiting, as well as any other related information, we can insert the History action in the Title with the corresponding action from the Title Manager.

The following image shows the window that will display when History utility is launched.


History - Windows Internet Explorer proporcionado por Windows uE
Page history
Page
Select page path
Title > Heading > Page

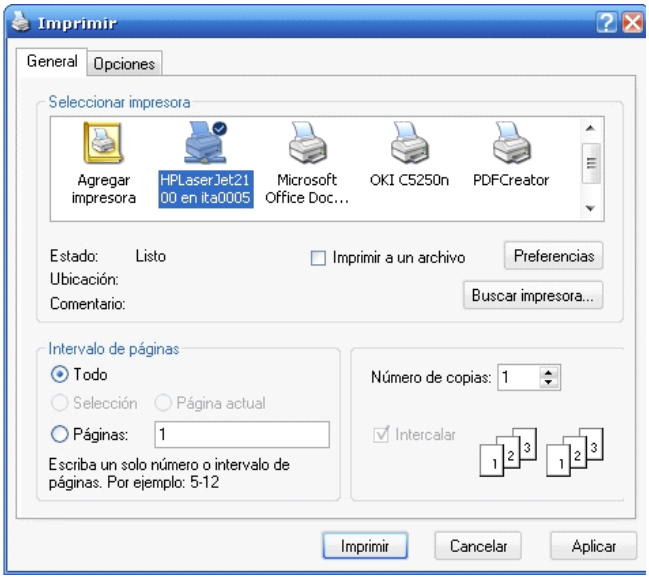
A list with the whole visited pages will then appear. If you select any of them its access path in the field <Page Path> will be shown. By clicking over the path you can accede to the visited page.

8.6 Print

Thanks to this utility you can print the complete Title or individual pages.

In order to insert this utility in the Title you have to create the Print action (see paragraph The Title Manager from Chapter 7: Actions and Interactivity).

Once the event that originates the printing action takes place, the browser printing window will open. The configuration options depend on the browser itself and on the printers that are installed.



9. EASYPROF® AND SCORM

9.1 SCORM

ADL and SCORM

SCORM, acronyme of Sharable Content Object Reference Model, is a reference model, a collection of specifications developped by several organizations that the ADL (Advanced Ditributed Learning) US initiative promotes for the e-learning technologies development. ADL is harboured by the American Defense Department.

The Content Packaging model and the Run-Time Environment

At the present time SCORM is organized in two sections: a Content Packaging Model and a Run-Time Environment. .

The Content Packaging Model explains how content must be described through the denominate “metadata” (information about information), how it must be combined in order to create training units or courses, and how it is packed in order to allow its compliance in different systems.

The EasyProf® user can easily edit information related with the first one, that is directly related to it.

The Run-Time environment defines the technical methodology (protocols and formats) for launching and realizing a content tracking between the Learning Management System and the student.

Scorm compliant courses are portable: they can work in any SCORM compliant LMS ADL and SCORM

SCORM state

SCORM is in progressive development and we already can foresee the inclusion of specifications related contents sequenciation and navigation between themselves, as well as thhe improvement of the data models. Those achievements should permit the existence of advanced and adaptative architectures.

The SCO

The SCO (Sharable Content Objects), reusable learning content objects, are the main content unit included in any SCORM compliant course. A course can be formed by one or several SCOs: it can be itself a SCO and/or contain several SCOs.

SCOs must own at list an asset, content elements that supoport the fraining material: written information, multimedia, evaluation tests, etc., and fulfill two main rules for guaranteing their reusefulness, with the minimum possible quantity of changes:

- A SCO cannot have a direct hyperlink to another SCO
- A SCO cannot have a direct access to data belonging to another SCO.

Any SCO includes metadata whose mission is to describe its content and other aspects. This metadata is included in the imsmanifest.xml, one of the files belonging to the whole of files from a SCORM-HTML published course.

Another content can be created on agregating several SCOs already published by their corresponding tools. <this content can adapt itself to the user learning needs.

9.2 SCORM Implementation in EasyProf®

EasyProf® is compliant with SCORM 1.2 in the following aspects and way:

Content-Packaging: it generates the necessary files (.xml) in order to describe the course and therefore the SCO that compose it. This description includes the course information, the navigation type existing between different SCOs and the used resources (.html, javascript, image and media files, etc.). Then the imsmanifest.xml file, compose of four different groups, is generated:

- Heading: describes the .xml file and the "schemas" it fulfills: (.xsd that defines the SCORM 1.2 standard).
- Metadata: course description (title, key words, etc.)
- Organizations: navigation and SCOs sequence in the course.
- Resources**:** contains a list of all the files used by each SCO.
- Metadata: For each SCO a type name_of_sco.xml file is generated. It is encharged of each SCO individual description, that the imsmanifest.xml file has to link. Description is realized through the SCO Metadata, and this one can be linked when defining each SCO in EasyProf®. For more details on metadata see the SCO Manager in the following section: The SCOs Manager.
- Run-Time Environment (RTE): EasyProf® SCORM-HTML publication uses the following SCORM RTE characteristics:
    - Last visited page: whenever the state in which the SCO is abandoned permits it, the last visited page will be saved in the LMS. In this way, this one Hill be directly oponed if the SCO is visited again. a visitar el SCO.
    - SCO Status: depending on the way the SCO is started, how you navigate through its content and the results of tests it can occasionally contain, its status will be changed so that the LMS acts in consequence.
    - Time: You can control time a student keeps an SCO open (with the LMS help). You can either limit it this way or define the action that happens once it is consumed.
    - Evaluation: an SCO evaluation can be controlled from the inside inserted tests. The user chooses which of them participate in this SCO evaluation, as well as each one's ponderation and required results or percentages for passing. He also can specify wether all pages have to be visited in order to pass, after which SCO takes the "passed" status. In case visiting the whole pages is no requirement for obtaining the pass, the minimum punctuation obtention will be a sufficient condition.

Some of those characteristics may not be present in some determined LMS, for SCORM 1.2 does not specify them as compulsory. For this reason, EasyProf® ascertains that they are present in the LMS before performing the corresponding operations.

Metadata edition

In order to edit the metadata of a Title belonging SCO, EasyProf® owns a tool named SCO Manager, that you can find in the SCORM output configuration options in the Output > SCORM Generator > Output SCORM Configuration. Menu. You can obtain information from metadata and the SCO Manager in the following section: The SCOs Manager.

Publication

A Title publication in SCORM-HTML also permits managing the SCOs, relatively to this process. In section How to publish a Title for Web (SCORM-HTML) in Chapter10: Titles publication is explained the way of publishing a Title in SCORM-HTML.

9.3 The SCOs Manager

The SCOs Manager function is to allow the metadata edition of any SCO defined in the Title, taking into account that the metadata itself is independent from the general context corresponding to this SCO.

Before describing the metadata elements that are editable through the SCOs Manager, it is useful to remember the way SCORM classifies the course metadata. This metadata is included in the imsmanifest.xml file (later, in this chapter itself, will be described the different metadata elements), according to three categories corresponding to the Assets (reusable resources, for instance media, contents aggregation and SCOs). The metadata elements can also be grouped according to two possible criteria:

The metadata position in the imsmanifest.xml file.

The fact that the metadata is either specific or independent from the context

Metadata elements that are specific of the context, that is to say of the concrete course in which it finds itself. Such a metadata is packaged in the imsmanifest.xml file.

Metadata elements that are independent from the context. Those are descriptive metadata of the SCOs or Assets independent of the particular course in which they are integrated. This independence from the context is necessary in an SCO or Asset in order to guaranty its reusability. .

For describing the SCOs the second criterion is especially interesting, as it just requires metadata that is independent from the context. Thus, it is logical that the the SCO Manager works with compatible metadata elements. In their turn, those elements independent from the context are classified in new subcategories, as we are going to see. Such a classification is not only used in the SCOs metadata, but also in order to describe the Assets and the contents aggregation.

The SCO Manager can be displayed by selecting the Output > Generador de SCORM Generator> SCORM ouput configuration option in the menu bar. When doing it, the following items will be found

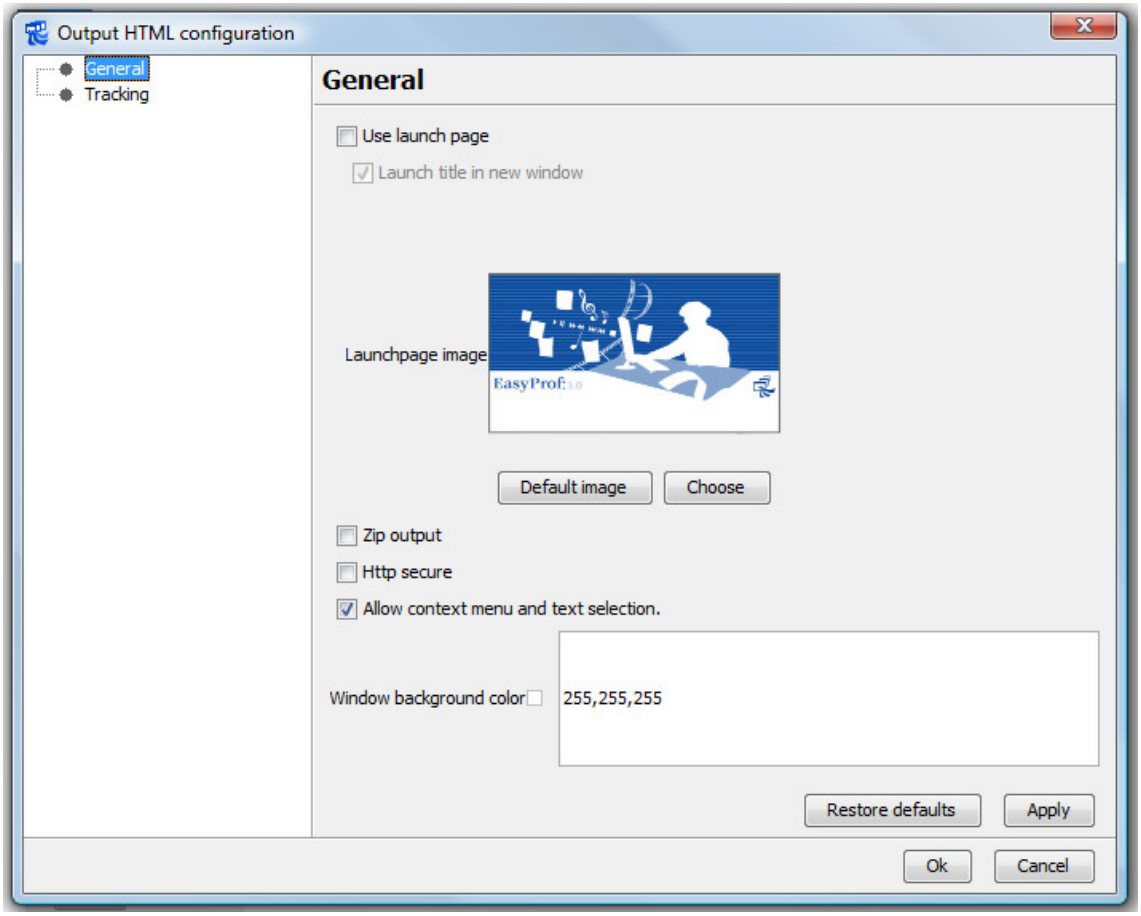
General

There are two options:

First one allows defining whether a launch page will be used or not. The launch page is a static one whose function is launching a predetermined-sized window by the editor containing the Title. If we select option Use launch page, a new option, selected by default, is activated and will make our launch page open the title in a new window. We can customize image to be shown in such page.

The second option we can configure is called Zip output. If selected, the generated SCORM files will be compressed in a folder with a .zip extension. This option is very useful because it allows us to keep all files together and taking up a minimal space. Since SCORM courses are bound for its publication in an LMS platform, having to upload the minimum amount of files and as small as possible in size will be very interesting. Most LMS, as for example Moodle, are ready for uploading ZIP compressed SCORM files. It is the platform the one that unzips the file and places them in the right location.

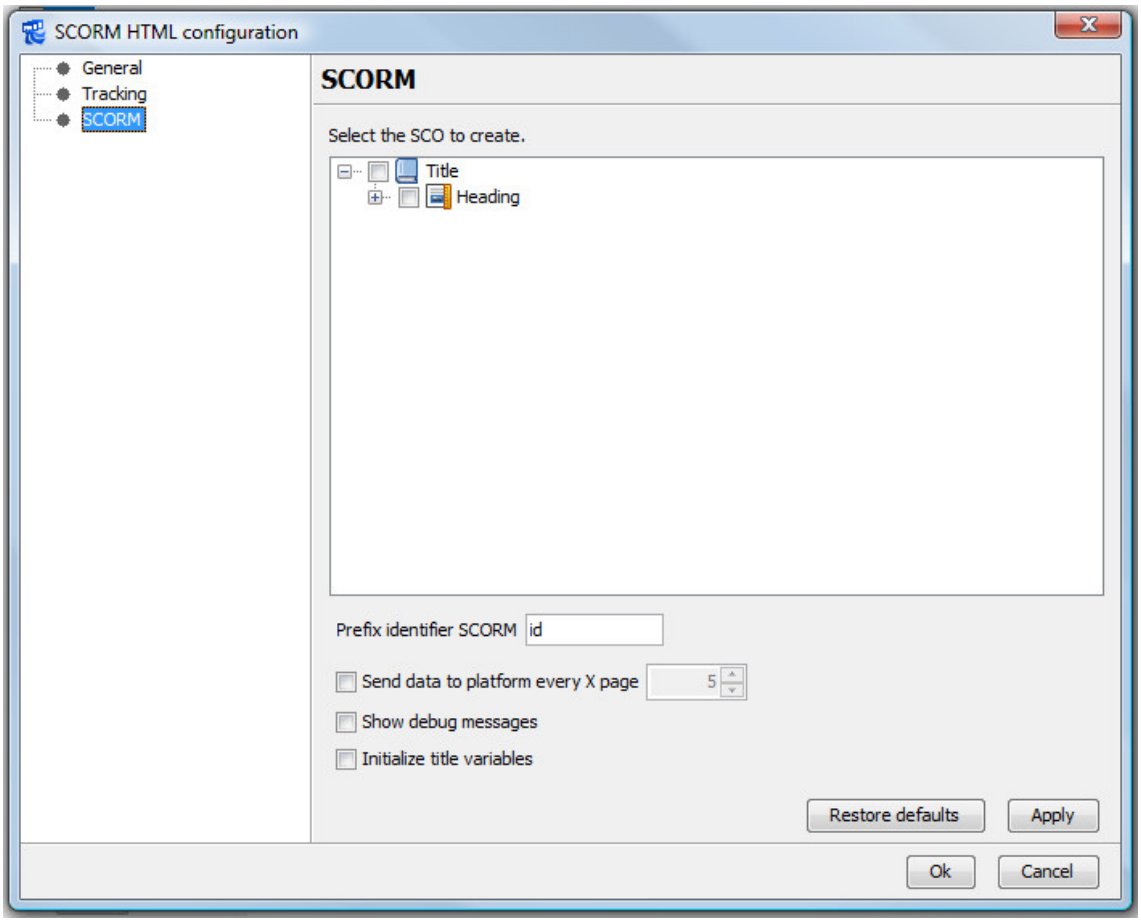
We can enable an option so that generated content may be viewed from a safe https location.



SCORM

When selecting this option appears a box with a hierarchical tree showing the Title and its headings. For each selected section a SCO will be created. Once the SCOs we wish to create have been selected we must click on the [Applicate]. Button. In the left –hand size column are shown the SCOs taking into account their hierarchical structure. Each folder corresponds to an SCO.

Whenever we want to go back to default values, we only have to click on Restore Defaults. This option will delete alll changes done in configuration.



We can define an identifier prefix for each SCO so that they adapt to certain specifications. Id is the one used by default. We can also decide how many pages do we have to viit before sending information to the platform (by default no information is sent until they are closed), as well as forcing the display of error messages if there is any communication problem with the platform.

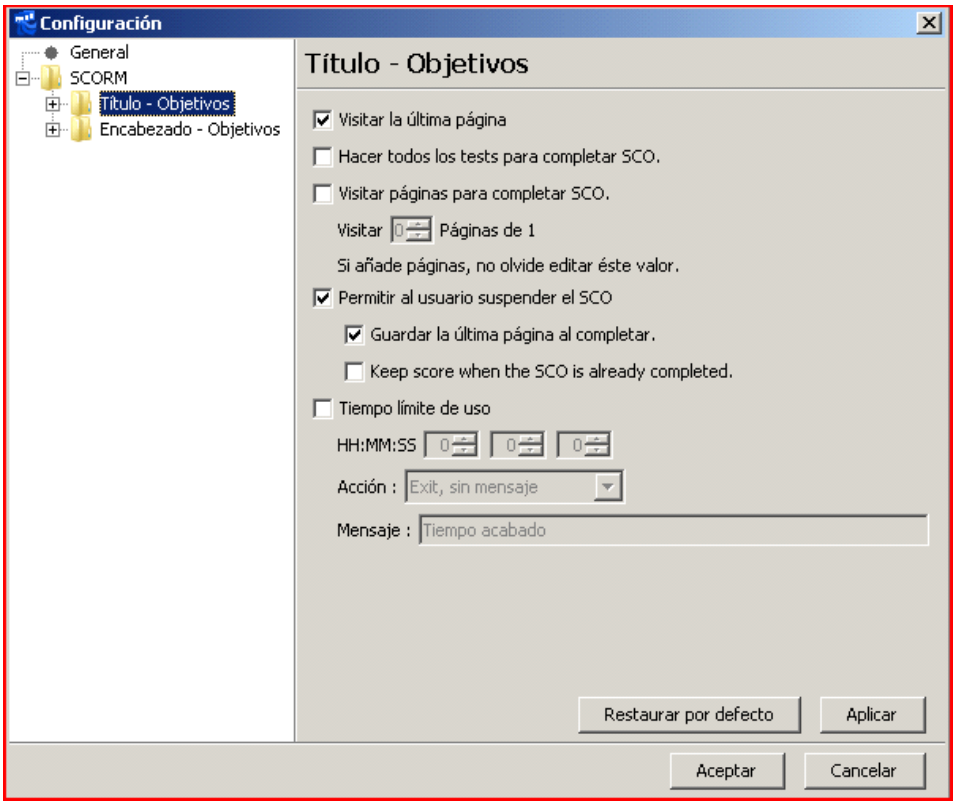
In order to edit each SCO metadata we just have to unfold the corresponding tree and select the different sections. In the right hand box appear the available options.

Objectives

The LMS is responsible for the launching of the SCOs based in the Web, and can implement their presentation in the desired way. It can, for instance, follow a mechanism of adaptability to the final user needs and progress, or allow him to navigate in the Title in the way he wishes. By selecting the main folder of each SCO we can edit the objectives:

- Visit last page to complete SCO: the SCO will not be completed if last page has not been visited.
- Realize the whole tests for completing an SCO: the SCO will not be considered completed if all the tests have not been realized, independently from its result.
- Visit pages in order to complete an SCO: the SCO will not be considered completed if a determined number of pages have not been visited yet, being those pages indicated in the corresponding selector. If later you add a page don't forget to modify this section.
- Keep general data of the SCORM (cmi_suspend_data): allows the user to abandon the Title without ending and have the possibility od following on afterwards. It keeps a record of the last visited page so as to start from it when we return.
    - Save last page when completed: It allows the user to return to last page visited once the Title has been completed.
- Keep score once SCO has been completed: Once a SCO has been completed, obtained score will be kept even if we examine it again.

- Use limit time: delimitates the time the user disposes of in order to complete the Title. Once this time is exceeded we can define which behaviour the application is going to follow, by customizing a message for the user.
- Leave the course without warning: the SCO will be closed, without previous warning.
- Leave the course with warning: the SCO will be closed, with a previous warning to the final user.
- Continue without warning: it will be possible to keep on with the SCO although the limit time has been completed, without previous warning.
- Continue with warning: it will be possible to keep on with the SCO although the limit time has been completed, after a warning.



General

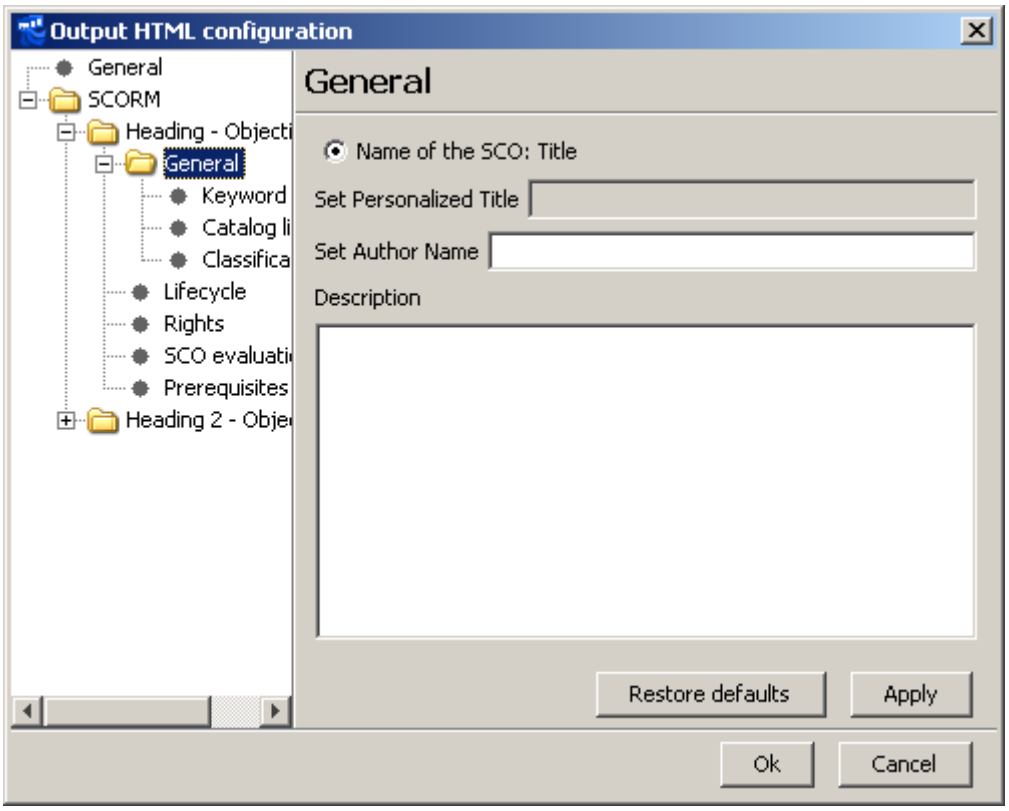
This metadata category is used in order to describe the resource as a whole.

Heading name: permits assigning the SCO the same name than the heading or subheading's in the Title Table of Content.

Customized title**:** Permits assigning the SCO a customized name. To enable this function we must deselect the previous option.

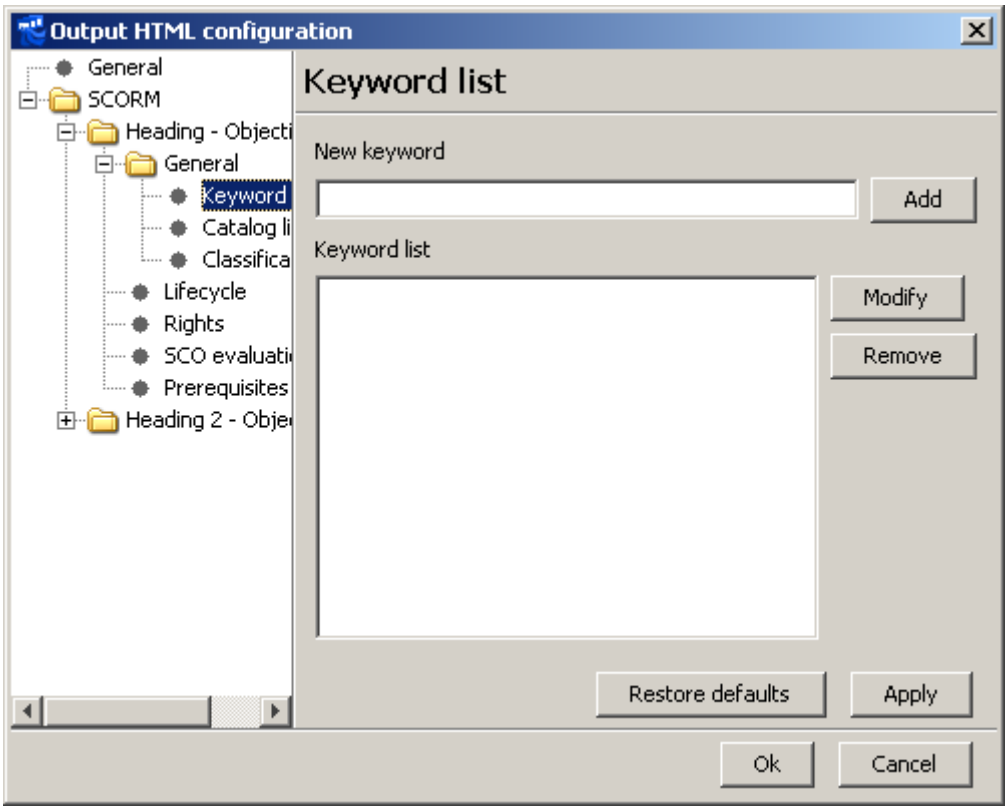
Author: Permits introducing the SCO's author name

Description: a SCO content description can be introduced.



Key words:

Key words are usually used for describing the SCO content. Their existence permits the SCO to be easily found in a search that includes their key words as parameters.



New key word: Permits introducing a new key word: Once the button [Add] is enabled for its use. .

Key words list: Shows the SCO key words list. Their names can be modified or be deleted of the list by means of [Modify] and [Delete], respective buttons.

Catalogue entries

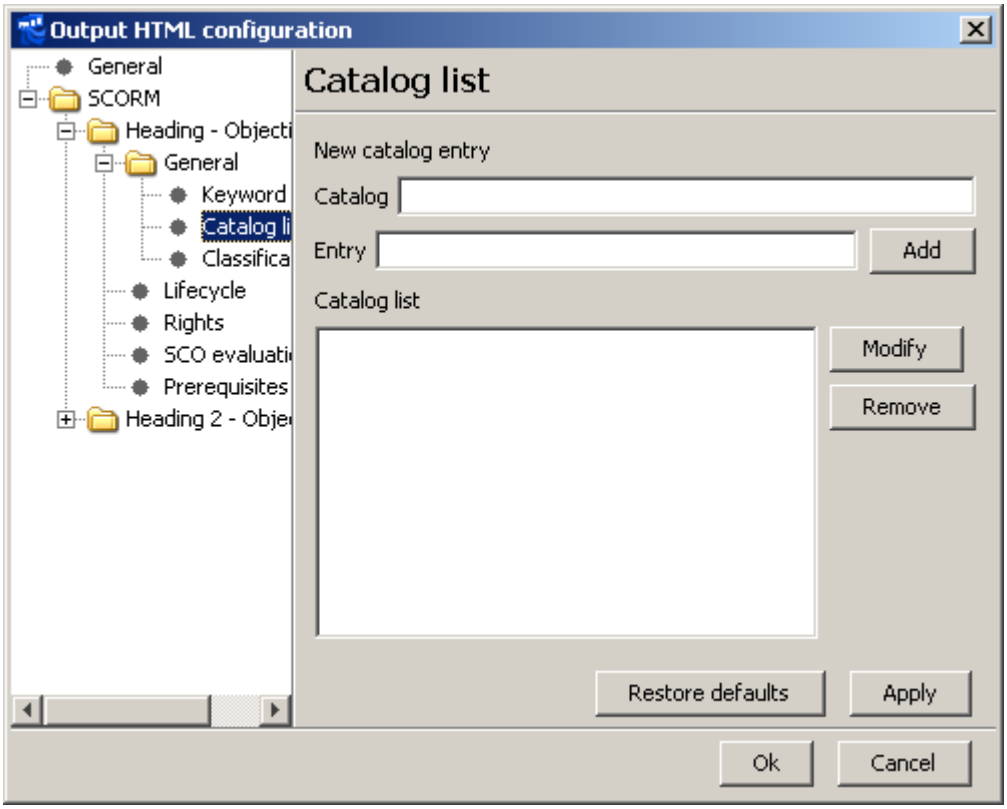
SCOs may belong to one or several catalogues (list identification systems, such as for example library catalogs). In this case catalogue entries can be assigned according to the selected cataloguing system, so that the SCO may be searched an located externally according to the cataloguing system own methodology.

New Catalogue entry: Permits creating a new catalogue entry.

Catalogue: Describes the name of the catalogue where the SCO is to be classified.

Entry: Describes an entry assigned to the SCO in the catalogue.

List of Catalogue entries: Shows the catalogue entries assigned to the SCO. The [Modify] and [Delete] button respectively allow changing the catalogue and entry name or delete the entry.



Classification entries

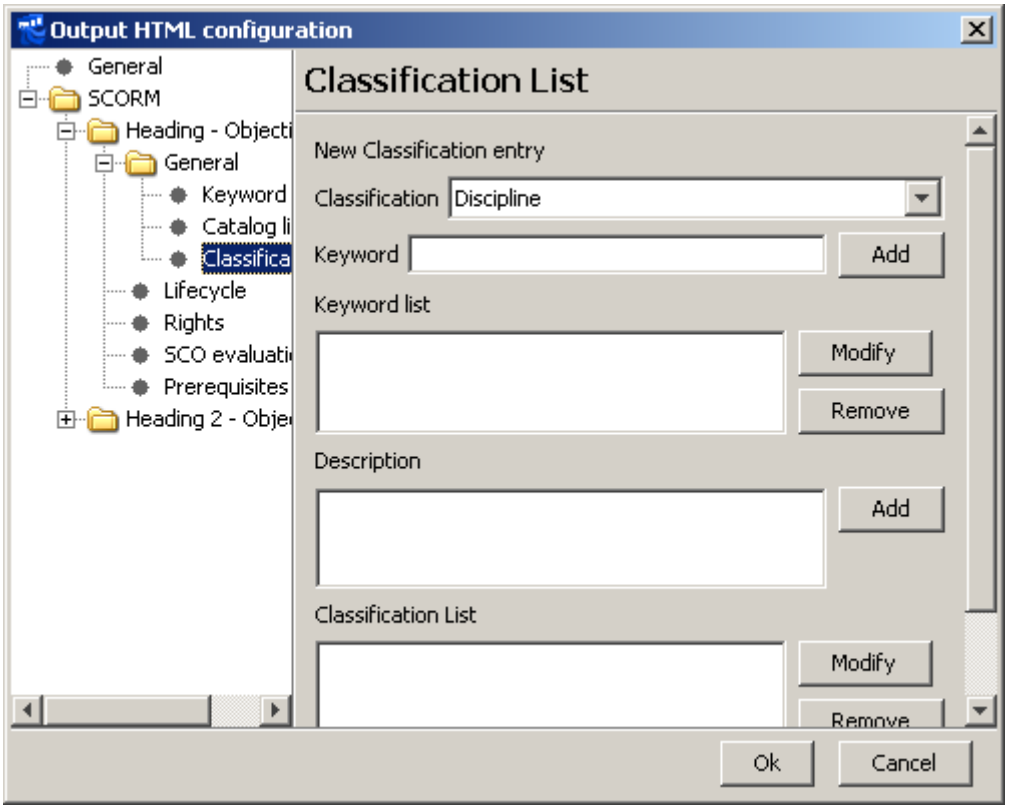
This category describes which the SCO location is in a determined classification system.

New classification entry: Permits introducing new classification entries. Below you will find an example of how to do it, after the description of the current category different items. There is the possibility of defining multiple classifications, through the creation of new classification entries.

Classification: Permits selecting the SCO classification purpose, with the following possibilities:

- Discipline
- Idea
- Prerequisite
- Educational restrictions
- Access restrictions

- Educational level
- Skill level
- Security level



Key word: key words or sentences describing the SCO can be incorporated, in accordance with the purpose selected in the Classification list box, and this for the classification whose edition in currently in progress.

Key words list: Shows the existing key words list. They can be renamed with the help of the [Modify] button, as well as deleted by clicking on [Delete].

Description: It is the SCO description according to the selected purpose for the classification whose edition in progress. The [Add] button permits ending the classification edition, by incorporating it in the list box.

Classifications list: Shows the list of existing classifications. They can be edited with the help of the [Modify] button, as well as be deleted by clicking on [Delete]

Example: in order to create a classification entry steps like the following can be realized:

1. Select the desired classification in the Classification box.
2. Introduce, if you wish, a key word in the corresponding box. Click in the [Add key] button if desired, a key word in the corresponding box. Click on the [Add key] button if it is the case.
3. If you want to change or delete the key word, press the corresponding buttons located on the right-hand side of the List of Key words list box.
4. Add a description of the classification, if you want.
5. Click on the [Add] button, located on the right-hand side of the Key words list, so that the classification is created. The new classification will then appear in the classifications List.
6. If you want to change or delete the classification, click on the corresponding button located on the right-hand side of the classifications List. If it concerns a modification, a window will appear that permits changing the selected purpose, as well as adding, modifying and deleting key words.

Life cycle

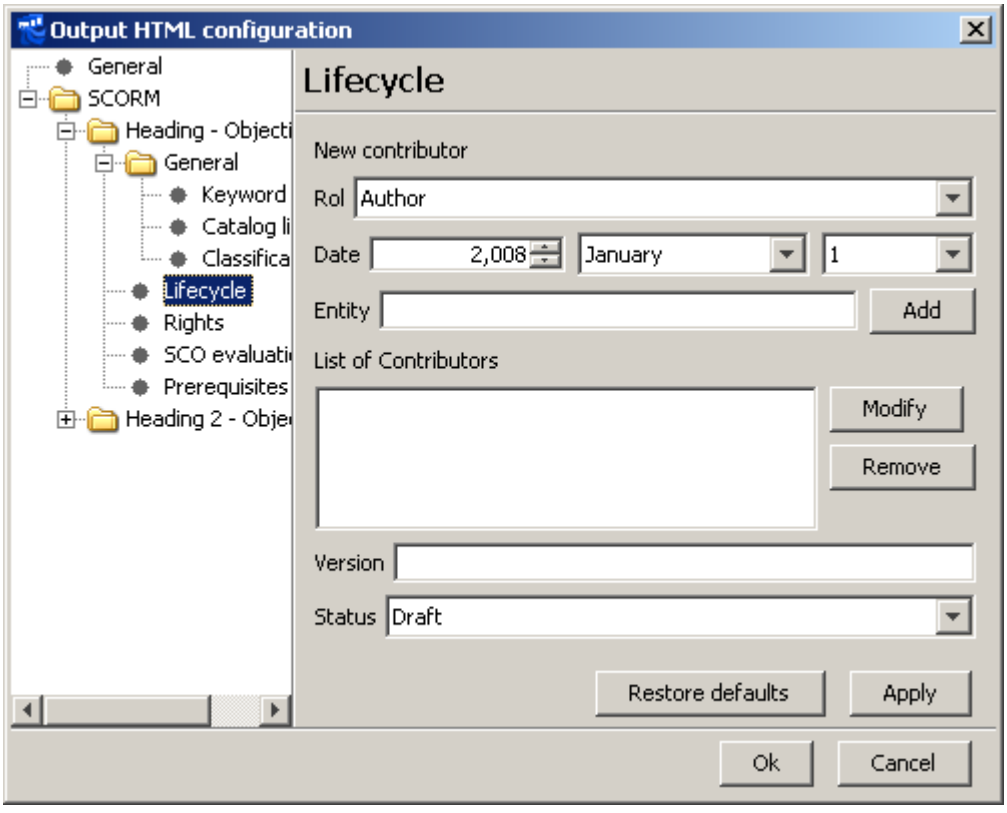
Describes the history and current state of the resource (SCO), while it informs about who took part of its evolution.

New collaborator: Colaborator represents the person or organization responsible for the SCO evolution, in the creation, edition and publication steps. .

Once selecting the adequate options in the Rol, Date and Organization the [Add] button will remain enabled, allowing the insertion of a new contributor.

Role: It is the role the contributor has played in the SCOs evolution. Any of the following options can be selected:

- Author
- Publisher
- Initiator
- Ender
- Validator
- Editor
- Graphical Designer
- Technical implementator
- Contents Provider
- Technical validator
- Educational validator
- Story Boarder
- Instructional designer



Date: Date in which the contribution was realized

Organization: It is the identification and information about persons and organizations that contributed to the SCO.

Contributions List: Shows the list of contributors for whom metadata were created describing them in the SCO.

Version: Shows the SCO edition.

State: Shows the state or condition in which the SCO finds itself. The available states are:

- Draft.
- Finished.
- Revised.
- Not available.

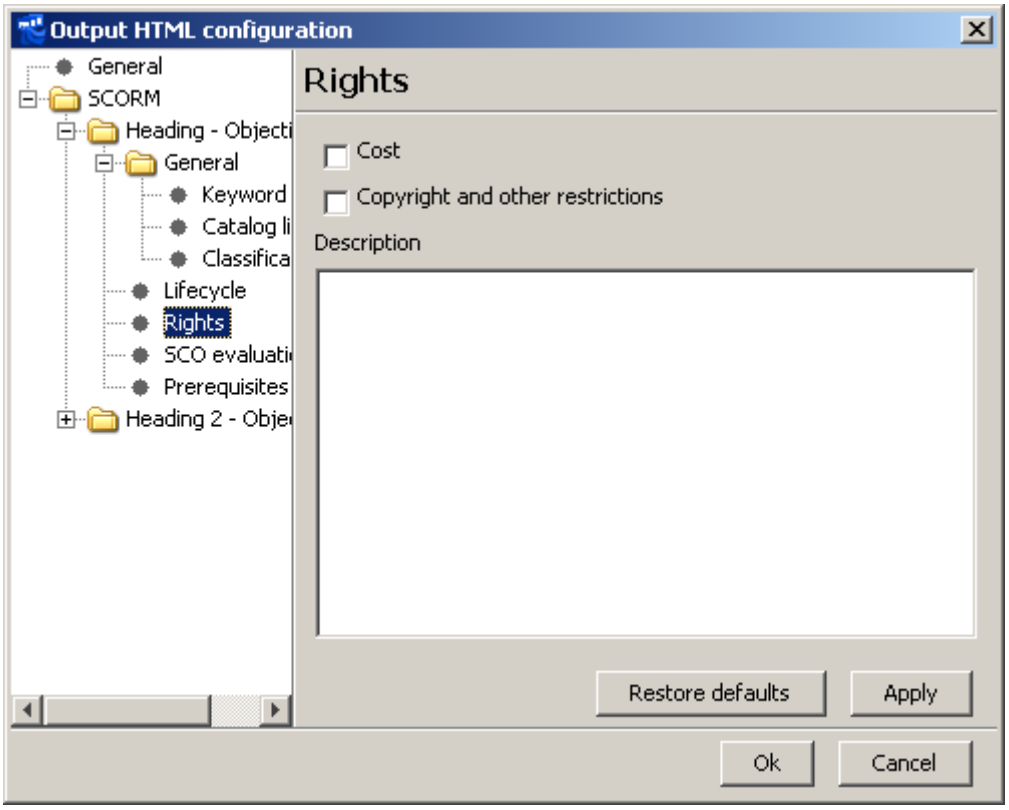
Rights

It describes the intellectual property rights and the SCO conditions of use. It contains the following elements:

Cost: This element plays the role of explaining whether the use of the SCO is paying or not. Enabling the verification box is equivalent to affirm it is.

Copyright and other restrictions: Allows declaring whether copyright exists or not or any other restriction applicable to the use of the SCO.

Description: Permits inserting comments about the SCO use conditions, associated to cost, copyrights or other restrictions



Evaluation

This metadata category is used in order to allow the LMS to manage some parameters related with the SCO evaluation. We must select option Include tests to score to activate it.

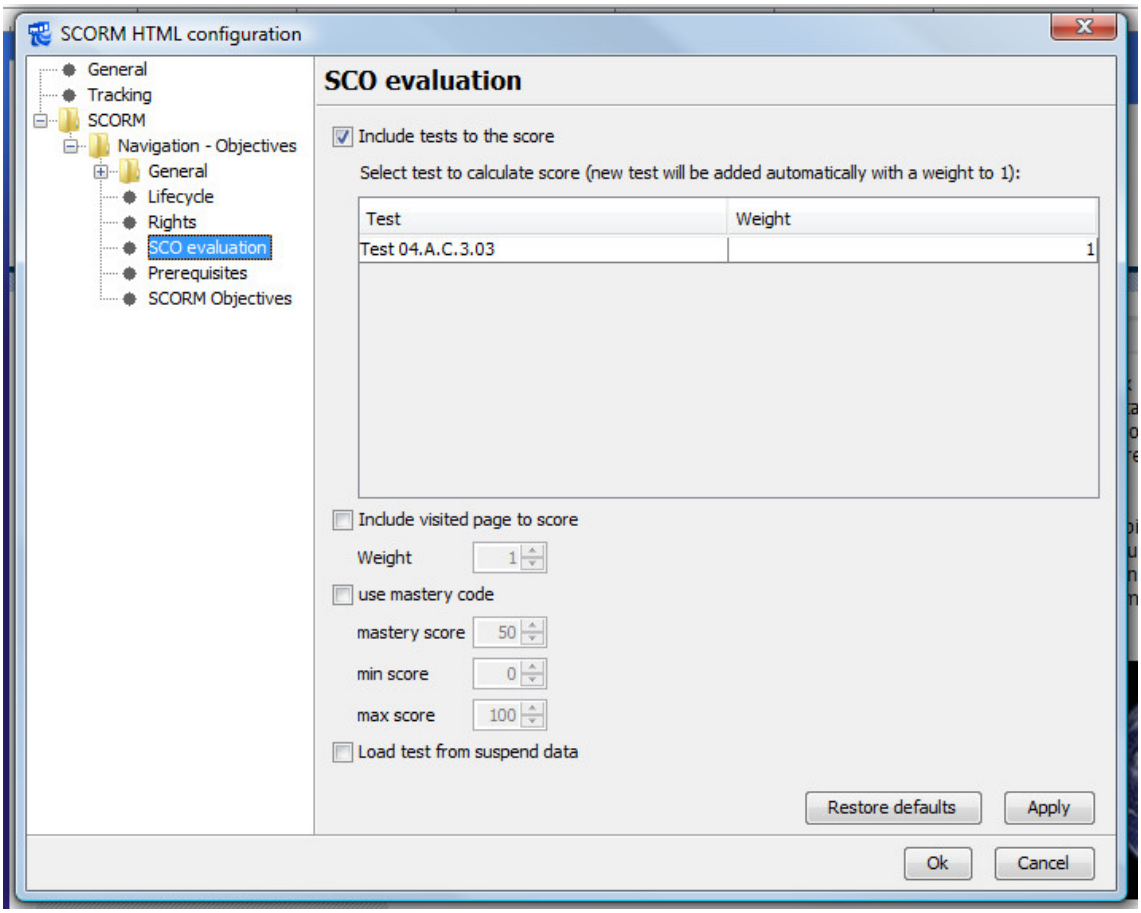
In the first column of the table located in the upper side will appear the tests, and in the right-hand side one the weigh we want to give to each of them. It is the tests weighting. By default each test weight is equal to 1, what means that all of them contribute in the same proportion to the total SCO punctuation. Ponderation may be edited and we can give more weight to a test in case we think that it is more important or we can lower its weight or remove it completely (ponderation = 0) to a test in case it is a self-assessment test.

The remaining editable options for the tests are:

Include visited pages to score: Permits defining a weight for visited page that will be added to the global tests.

Use Mastery Code: Permits defining an average test score to consider that a Title is passed, as well as the maximum and minimum score that can be obtained.

Load test from suspend data: Permits initialize back to 0 the test score regardless of previous test scores, it allows continuous reprtition of the test in the platform.



Prerequisites

This metadata category is to allow the LMS to prevent running a SCO if some previous requirements have not been met. Since posibilities are vast, this screen has two different options: Simple syntax and Advanced syntax.

The requirement is based on the state of the SCO with which it is compared. That is, that if we have two SCOs: SCO A and SCO B, we define that SCO A has the prerequisite. User will not be allowed to access SCO B until SCO A is completed or passed.

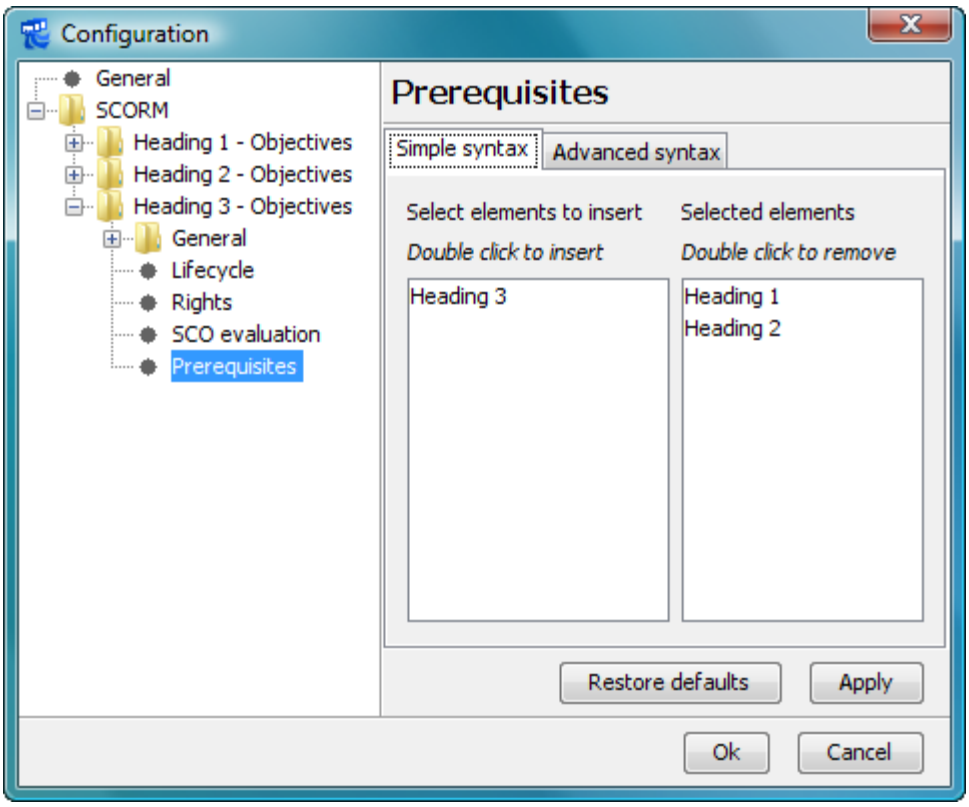
Simple syntax view shows two columns. First one lists all the project SCO. Second one includes all SCO that are a necessary requirement to start the actual project. To move a name from the left column to the

right column simply double click it. We will remove it from the right column in the same way.

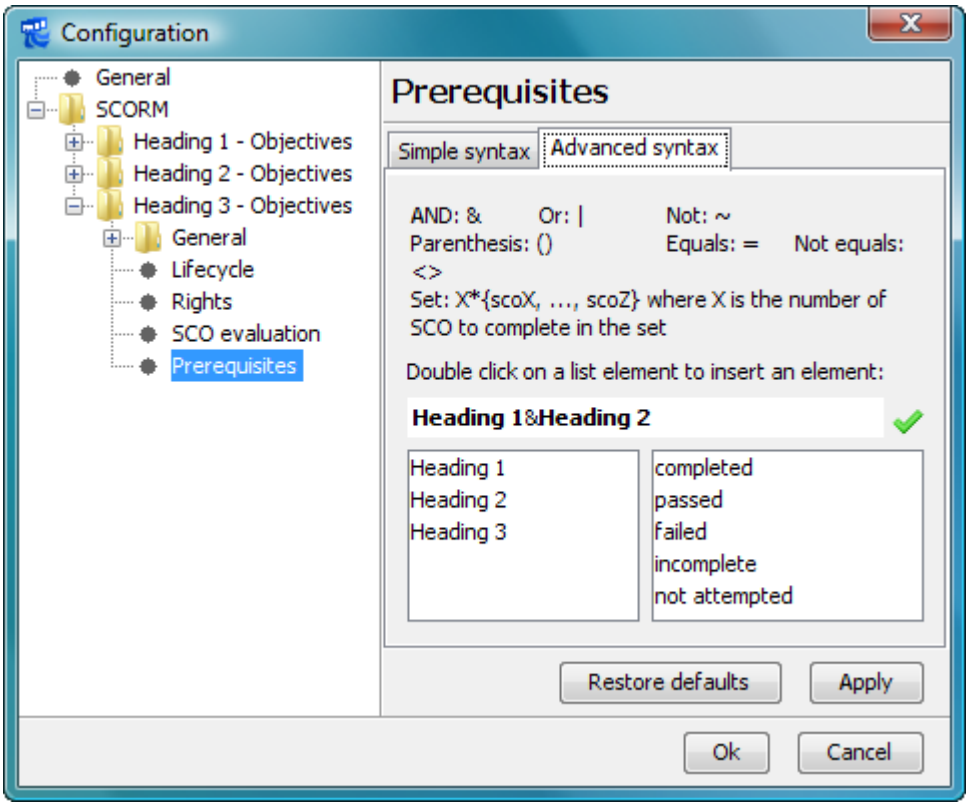
Each SCO may have its own prerequisites. That is why it is important to be aware of the conditions that we impose. If having completed SCORM B is defined as a prerequisite for a SCO A, and when defining prerequisites for B we say that it can't start without having finished A, none of the two SCOs will be able to start and therefore we can't complete the course.

From the Advanced syntax editor we can edit the prerequisites generated with the Simple syntax editor but not vice versa. Advanced editor shows us first the nomenclature used to defined the available options to define the prerequisites. Each symbol corresponds to an option. Then we find the field where we will actually define the prerequisites and after that two columns. Left column shows all SCO. Right column shows the status that such SCO may be given. By double clicking on the elements of any column we move them to the editing field found at the top.

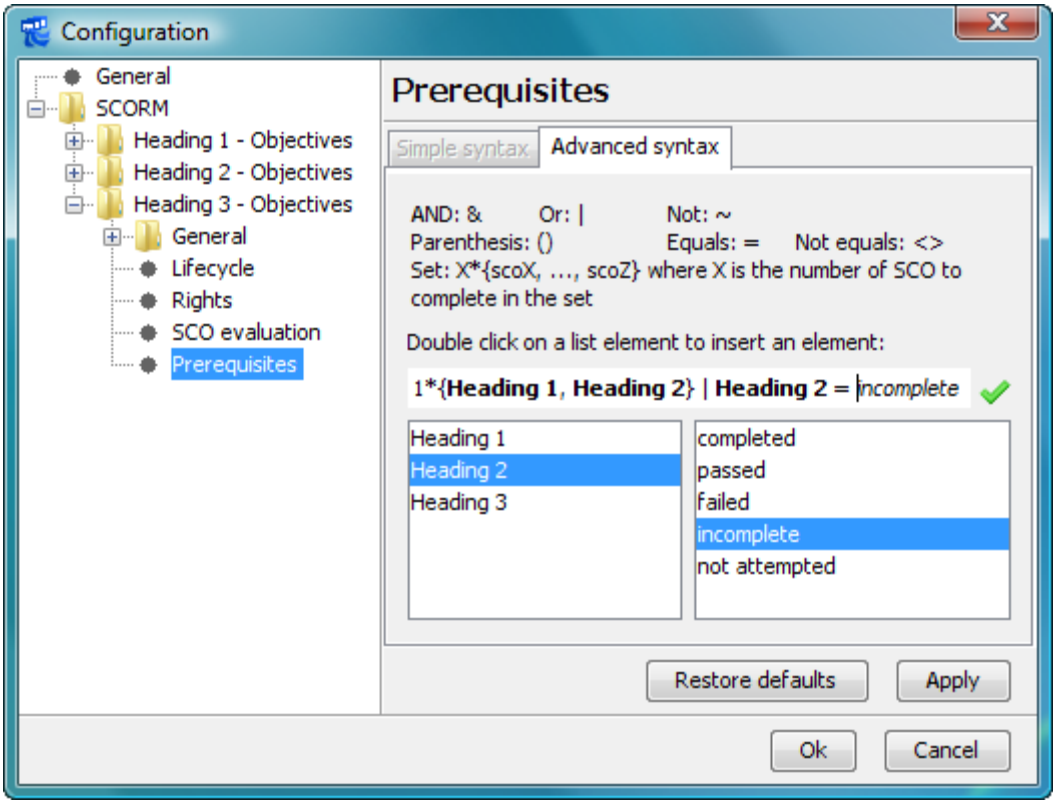
Let's see an example of operation. Suppose we have generated a course with three SCO. I don't want the third SCO to be accesible unless completion of the two previous SCO. In the third SCO prerequisite simple view we only have to select, double clicking on it, the first two SCO, as shown in the figure.



Advanced syntax view of this same election would look as shown in the following figure:



As we can see, to access third SCO we must complete SCO 1 and 2 first. We can generate more complex prerequisites by adding the names of the SCO, allowed codes and possible states of each SCO. Is nomenclature is incorrect, a red cross will appear by the edit field. If nomenclature is correct, a green check mark will appear.

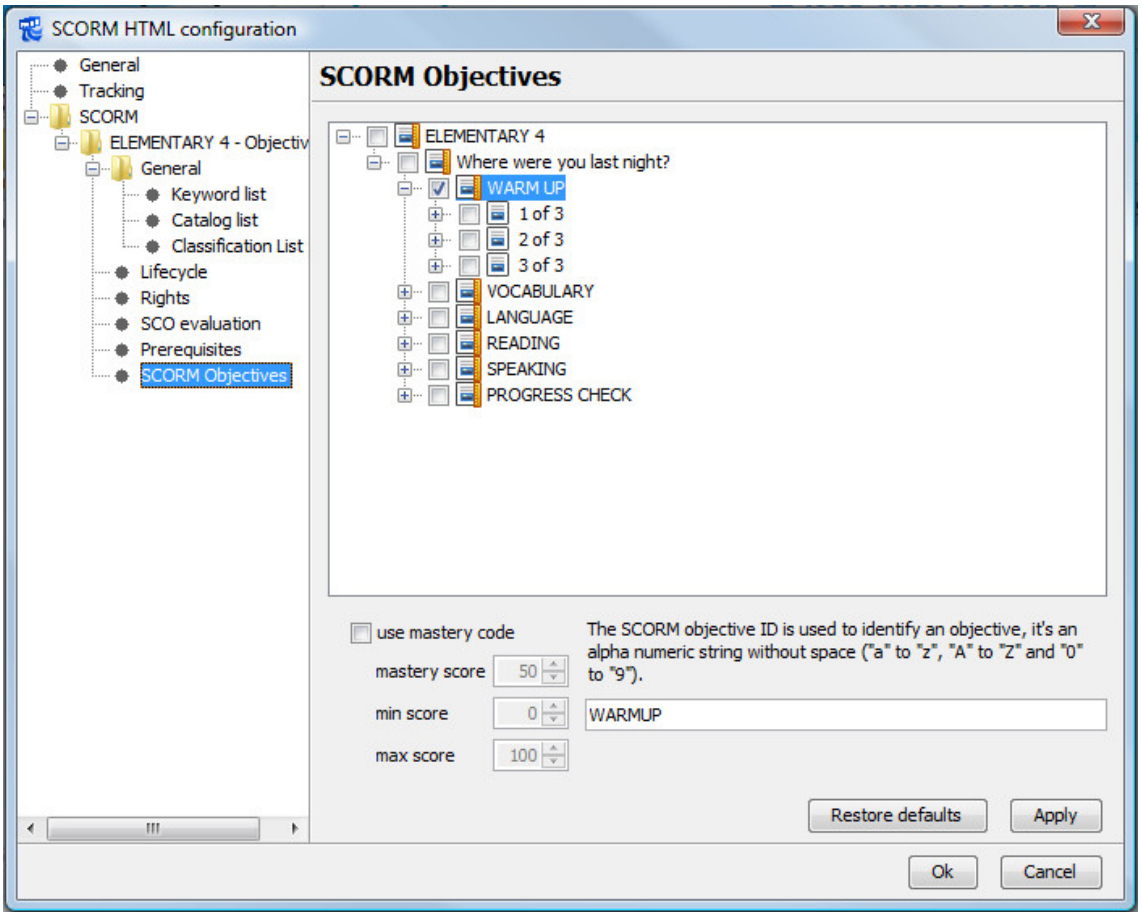


Below you can see a chart with all the advanced operators that may be used while editing the prerequisites.

Name	Syntaxis	Definition	Example	Result
AND	&	All items separated by & must be completed to be evaluated as complete.	S34 & S36 & S38	SCOs S34, S36 y S38 must be completed to have prerequisite achieved.
OR	| (pressing simultaneously Alt Gr + 1)	If any of the items separated by | is completed, expression will be given as veritable.	S34 | S36 | S38	If any of the SCOs, S34, S36 or S38 is completed, prerequisite will be achieved.
NO	~ (press Alt and without releasing it type 126)	SCO won't be accessible if the marked SCO is not complete.	~S35	SCO with this prerequisite won't be accessible until SCO S35 has not been completed.
Preference	( )	Expression between parentheses is the first to be evaluated. When there are no parentheses, we start checking from the left.	**Option 1:** S34 & S36 | S38 **Option 2:** S34 & (S36 | S38)	In option 1 user can acceed the SCO by completing S38 or completing S34 and S36. In option 2, S34 must be completed and at least one of the other two.
Even	=	Expression is true when a SCO has the chosen state.	S33=*passed*	Prerequisite is acomplished if S33 has been passed.
Not even	<>	Expression is true when a SCO does NOT have the chosen state.	S35<>*passed*	Prerequisite is acomplished if S33 has NOT been passed.
Series	X*{ }	X is an integer. This operator indicates that at least X of the elements between brackets must have been completed before giving the expression as correct.	3*{S34, S36, S37, S39}	At least 3 of the four SCOs between brackets must be completed to acomplish the prerequisite.

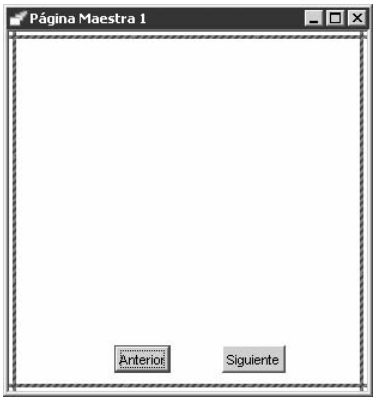
Scorm objectives

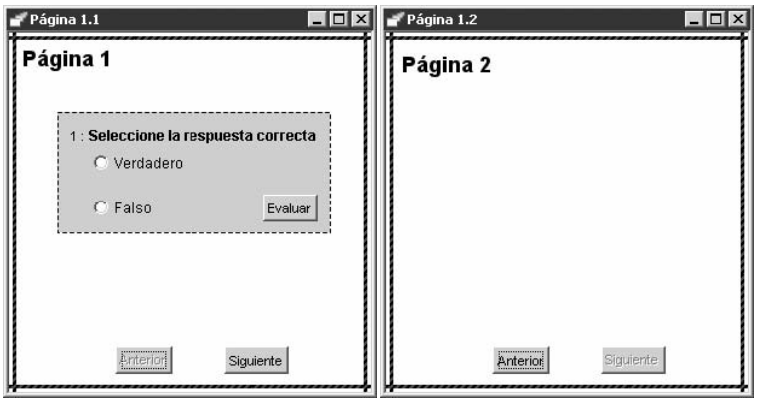
It allow us to define an identifier for each SCORM objective to facilitate monitoring, as well as narrowing results needed to pass it. These objectives will not affect the SCO evaluation.



9.4 States of an SCO in a LMS

Next some examples of possible final state of an SCO in a LMS will be shown, according to the constitution that has been selected from EasyProf® for this SCO through the metadata and the generation options. For it let us suppose a very simple Title case, constituted of a Master Page and two pages (see image below). In the Master Page there would be two navigation buttons: Next in order to go from the first to the second page, and Previous to do the opposite. In the first page let's create a test, for example True/False. With this simple Table of Contents structure we guarantee both the possibility of navigation and an the existence of an assessment, very useful in order to indicate the LMS which state he must assign the SCO according to the test results





In order to establish the SCO evaluation conditions, we will use the SCO Manager that will allow us introducing them in form of metadata that can be understood by the LMS. As it is natural, afterwards it will be interesting to publish the Title in SCORM-HTML format, and this one will have to be correctly uploaded in the LMS server. Immediately afterwards the final user could get the Title, viewing it in the browser, and taking some possible states of the SCO, according to the Title use he does. Let's begin to see which those states are:

Not attempted: Title still has not been opened and used by the final user.

Incomplete: The Title has been opened, but the final user has not completed it, that is to say, has not visited all the pages.

Completed: The Title has been opened, and the final user has completed it, that is to say, has visited all the pages.

Failed: It was required that certain tests and conditions were surpassed so that the SCO was also considered surpassed, but it was not reached.

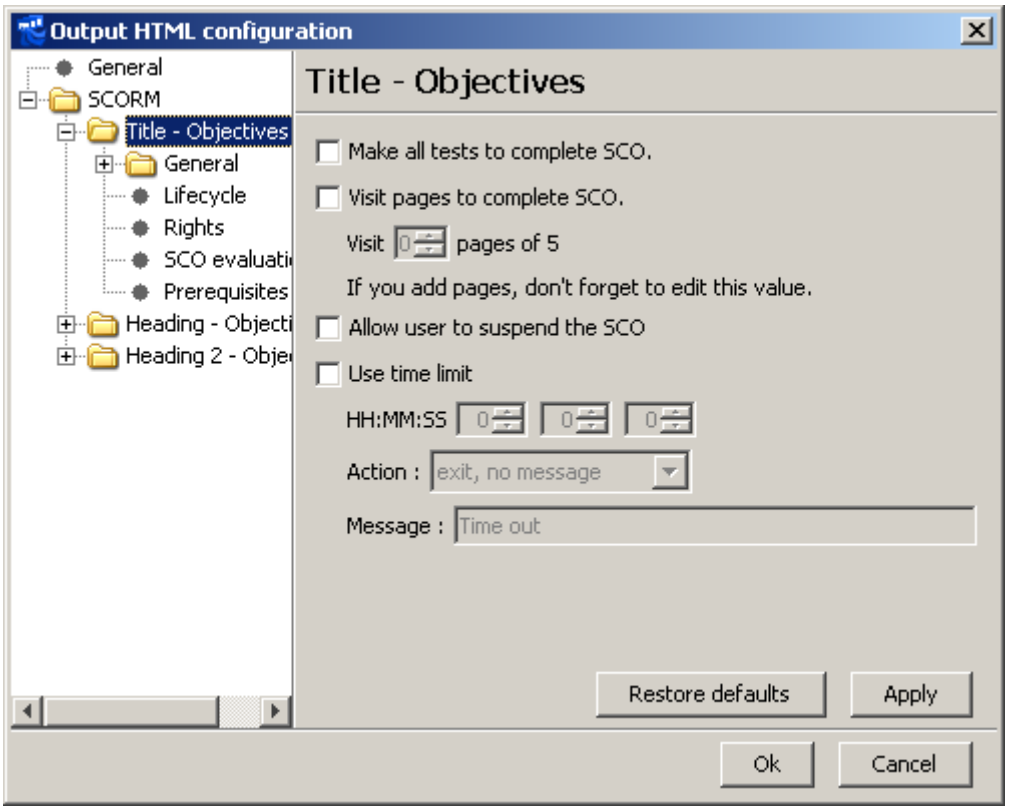
Passed: It was required that certain tests and conditions were surpassed so that the SCO was also considered surpassed, and it was reached.

As far as conditions (or a lack of them) that can be imposed in EasyProf® in order to get the SCO completed or surpassed, we can find the following ones, that can be enabled from the section Evaluation of the SCO Manager.

Tests results that are not supervised by the LMS**:** either the Enable SCO evaluation verification box is not enabled, or it is enabled without doing it in any of the tests, from their corresponding verification boxes in the SCO column of the table.

Tests results that are not supervised by the LMS: for it the Enable SCO evaluation verification box must be activated, simultaneously than some of the SCO tests. .

All the pages must be visited in order to complete the SCO: this case in an additional condition to the existence of tests in the SCO, that is to say, it is used for conditioning the SCO completion to the whole pages visit, without being a sufficient condition for it. It can also be selected a determined number of pages that have to be visited.



Taking into account the five possible final states of a SCO, parameters or conditions we can control from EasyProf® are the metadata, and taking as example the basic Title we proposed before, we can elaborate the following table, in order to understand how metadata and possible final states are linked.

Enabled SCO evaluation	Enabled tests in SCO column	Final user realizes the tests	Final user obtains the required mark	All pages must be visited	Final user visites all pages	Final SCO state
Yes	Yes	Yes	Yes	Yes	Yes	Passed
Yes	Yes	Yes	Yes	Yes	No	Failed
Yes	Yes	Yes	No	Yes	Yes	Failed
Yes	Yes	No	-	Yes	Yes	Completed
Yes	Yes	No	-	Yes	No	Incomplete
Yes	Yes	Yes	Yes	No	Yes	Passed
Yes	Yes	Yes	Yes	No	No	Passed
Yes	Yes	Yes	No	No	Yes	Failed
Yes	Yes	Yes	No	No	No	Failed
Yes	Yes	Yes	-	No	Yes	Completed
Yes	Yes	Yes	-	No	No	Incomplete
Yes	No	-	-	Yes	Yes	Completed
Yes	No	-	-	Yes	No	Incomplet

						e
Yes	No	-	-	No	Yes	Completed
Yes	No	-	-	No	No	Incomplete
No	Yes	Yes	Yes	No	No	Incomplete
No	Yes	Yes	No	No	Yes	Completed
No	Yes	No	-	No	No	Incomplete
No	Yes	No	-	No	Yes	Completed

NOTE: Some states of the SCO are definitive, such as Completed, Failed and Passed, so that a revision of the Title should not produce any change. Others, as Not attempted or Incomplete are not definitive. However, in Section SCO Manager Evaluation we can select the Delete evaluation at the beginning verification box. In such case the final states of the SCO are not definitive, considering that the SCO initial state is Not attempted every time it is open.

The Passed state is associated to a test overcoming, so that if no test is managed by the LMS, the state Completed is the one that indicates a "greater progress".

9.5 Links and documentation

In order to deepen knowledge about SCORM, below are suggested the following hyperlinks, fundamental as far as this specification.

www.aicc.org: Web page of the Aviation Industry Computer-Based Training Committee (AICC) is an international association of technology-based training professionals. AICC specifications began in 1988 and are usually designed to be general purpose (not necessarily Aviation Specific) so that learning technology vendors can spread their costs across multiple markets and thus provide products (needed by the Aviation Industry) at a lower cost. This strategy has resulted in AICC specifications having broad acceptance and relevance to non-aviation and aviation users alike.

www.adlnet.org: Advanced Distributed Learning (ADL) Initiative is the official home of SCORM. Sponsored by the Office of the Secretary of Defense (OSD), it is "a collaborative effort between government, industry and academia to establish a new distributed learning environment that permits the interoperability of learning tools and course content on a global scale. ADL's vision is to provide access to the highest quality education and training, tailored to individual needs, delivered cost-effectively anywhere and anytime."

www.imsproject.org: web page of IMS Global Learning Consortium, Inc., usually known as IMS. Its objectives are the definition of technical specifications for the distributed learning applications and services interoperability, as well as be a worldwide support for IMS specifications incorporation in products and services.

www.scorm.tamucc.edu/scorm/home.html: the US Texas A&M University - Corpus Christi offers an interesting course about SCORM, from Dr. Edward R. Jones,with two different levels .It can be realizad Esther online or locally downloaded in a computer.

10. PUBLISHING THE TITLE

Once the contents have been created, EasyProf® allows them to be published using the Publish Title for CD-ROM option, or either of the two options for internet use: Publish Title for web (HTML) and Publish Title for web (HTML-SCORM). This chapter describes the process required for publication as well as possible customization and the set of files that are automatically generated.

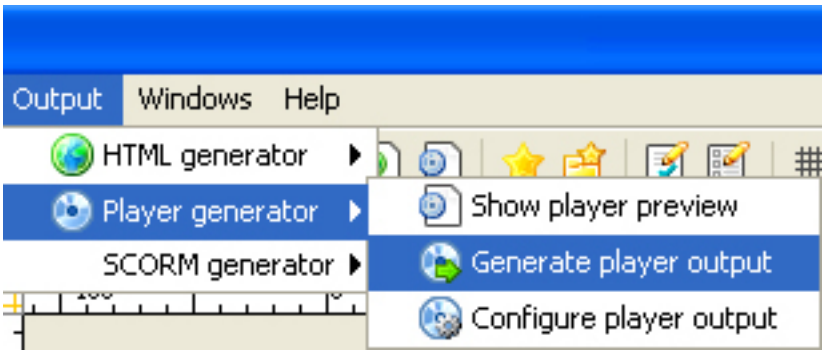
10.1 How to publish a Title for CD-ROM

EasyProf® permits contents generation not only for the web, but also in order to be executed locally. For it a Title Publication option for CD-ROM is available. This option allows the generation of an executable file that can be viewed locally in CD-ROM or through any disc unit, as for instance a Flash memory unit. The technology EasyProf® uses in order to generate those files is called “Output Player” The files generated with output player will be viewed exactly in the same way than if they were viewed for the Internet output.
.

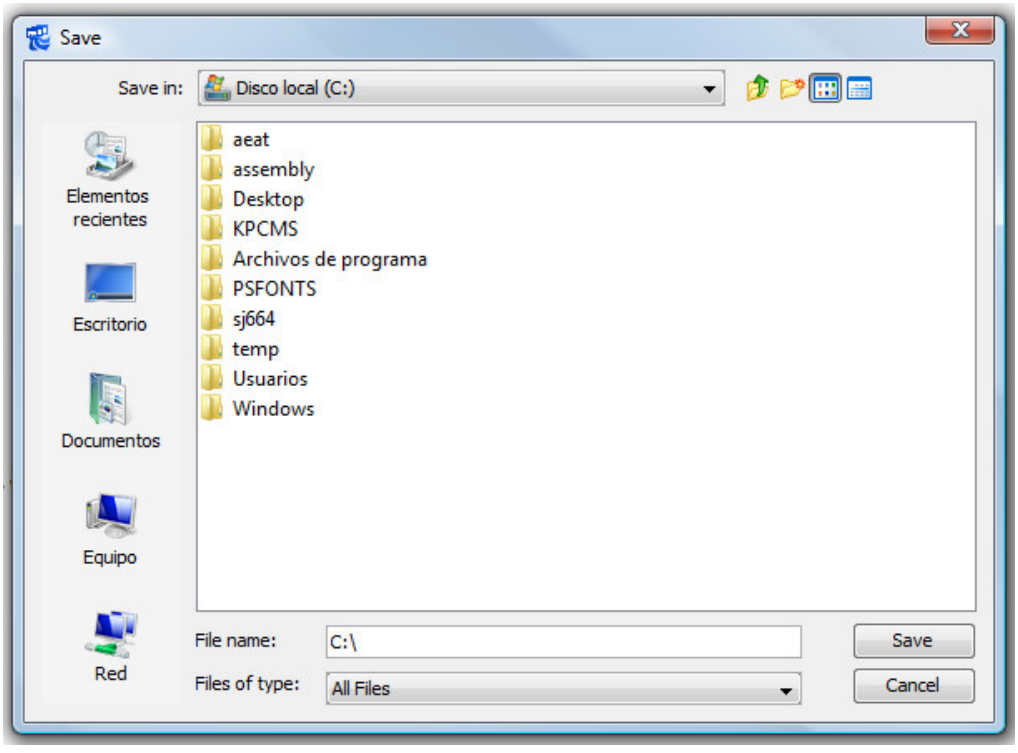
In order to publish a Title for CD-ROM all you need to do is specify which directory the output is to be generated in and the name of the executable file that will launch the generated Title. The process is as follows:

1. Select the item from the File menu:

   Output > Player generator > Generate player output



2. The file browser window will then be displayed. Choose the directory where the published files are to be copied.
3. Assign a name to the executable file.
4. Click on [Save].



5. EasyProf® will minimize and display a progress bar.

Output Player Configuration

Before generating the title for its publication in CD-ROM we can choose the icon that will show the executable file. For that we must go the “Output Placer Configuration”, open the option “Examine” and select from our system the file we want to use as icon.

Distributing CDs in Windows

Once EasyProf® has generated the CD-ROM output, it will have created an executable file and several archives with the associated resources. .

Distributing the Title in CD-ROM is quite easy: you just have to copy the whole structure of the files generated to a CD-ROM or a flash memory unit.

Realization of auto-run CD’s (Windows)

To enable your CD-Rom to run automatically in Windows-based computers, you can generate a small and simple text file.

This file must be always called “autorun.inf” and will have the following syntax:

OPEN=”Name of the file that has to be executed.exe”

ICON=”Name of the icon to be displayed in Windows explorer”

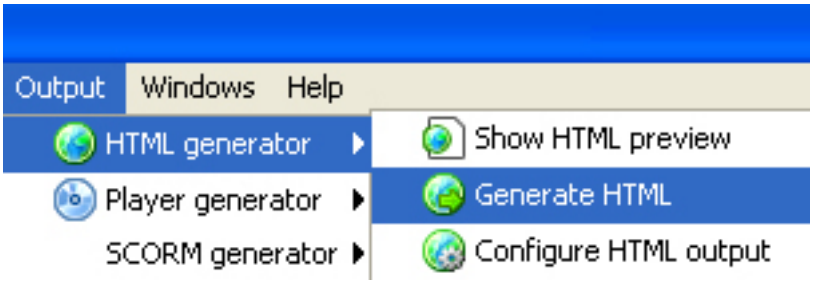
By doing so, when user inserts CR-ROM with the EasyProf® title, it will start automatically.

10.2 How to publish a Title for the Web (HTML)

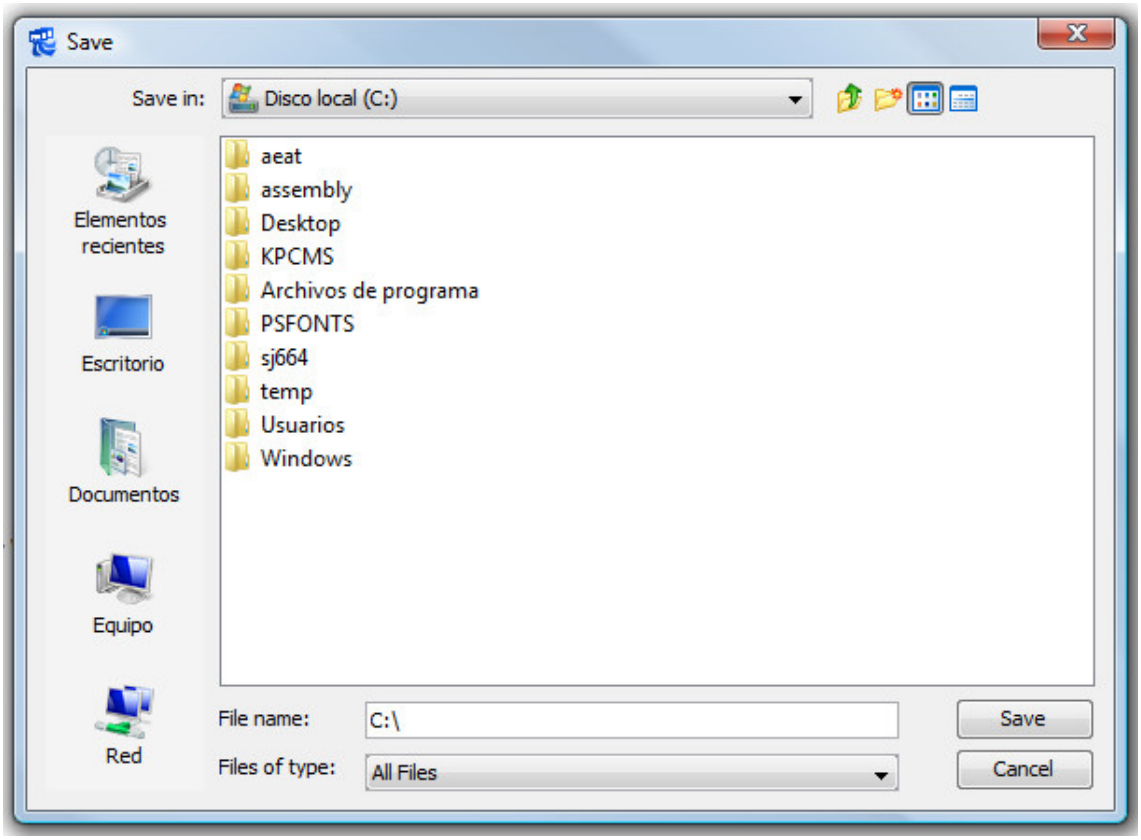
To publish a Title for the Web (HTML) you must specify a directory where the output will be generated as well as the name of the executable file that will launch the generated Title. In addition, some of the output parameters can be modified. The publication process is as follows:

1. Open the File menu and select the Publish for Web (HTML) option.

   Output > HTML generator > Generate HTML



2. A screen containing four tabs will then be displayed with the HTML output options. Once the desired parameters have been modified, press the [Ok] button. (See section HTML Publication options below)
3. Choose the directory to which the published files will be copied.
4. Assign a name to the executable file.
5. Click on [Save].



6. EasyProf® will minimize and a progress bar will be displayed.

When output generation is completed, EasyProf® opens the predetermined browser showing the Title.

Generated files

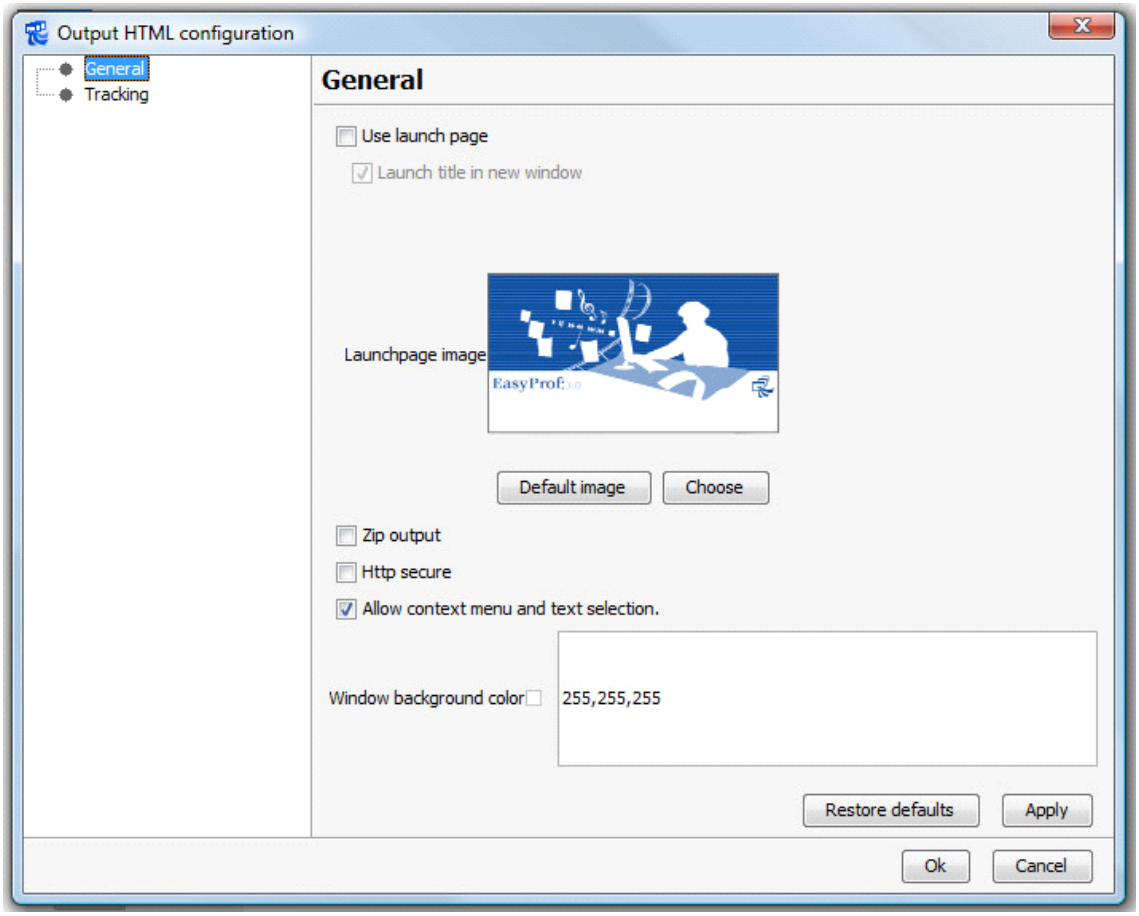
When an HTML Title is generated, a structure of files and directories that do not need to be modified is created in the directory chosen by the user. This can be immediately uploaded to the server once generated.

HTML publication options

The Titles generated by EasyProf® are opened by default in a main window of the browser. However another option can be chosen, that permits opening the course in a smaller floating window. For this it is necessary to generate a launching page. It consists in a web page that opens itself in the mail window of the browser and whose unique function consists in launching the Title generated in EasyProf® in a floating window.

In order to use the launching page you just have to go to menu Title > Configurate Title Publication for Web (HTML) and select the option Use launching page. In that case, we can decide to open a new window and customize image for launching page.

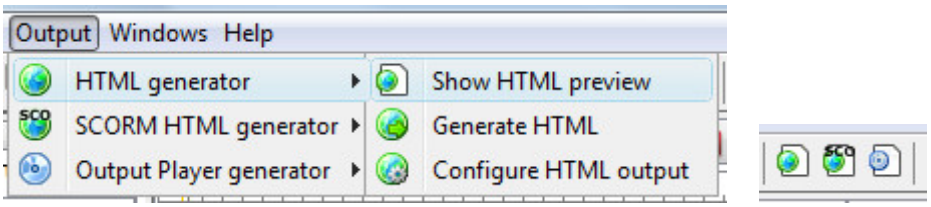
Using a launching page implies that we have to make a preload of all resources belonging to the Title. Output can be generated as well in a compressed file, as well as adapt it to run in http secure servers.



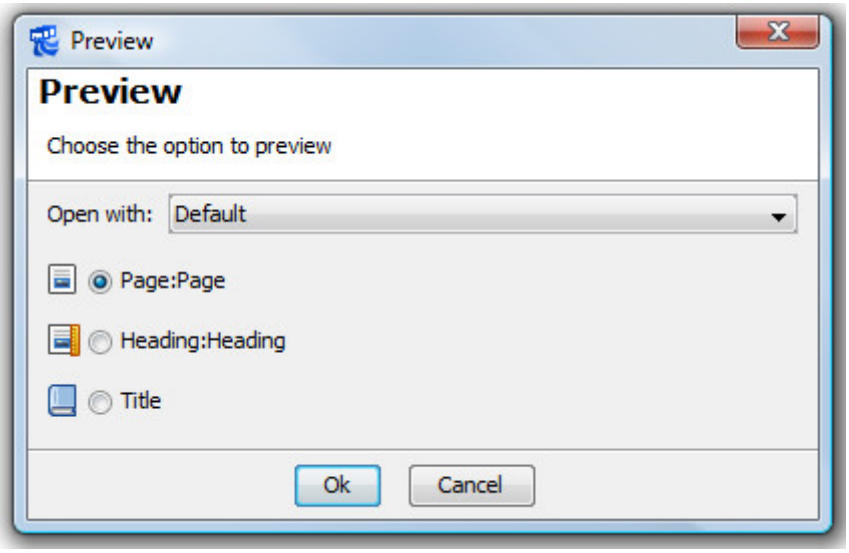
10.3 How to publish a Title for the Web (SCORM-HTML)

Before publising our Title, either for Web (HTML), SCORM or CD, we can make a preview to have an idea of how will the title look once published.

Each one of the Publication options that appear in the menu, has its own preview option.



We also find three buttons in the Toolbar to generate the preview. By selecting any of those options, a new preview configuration window opens where we can choose whether if we preview only the curent page, its heading or the whole title.



11. Monitoring

11.1 The idea of monitoring

There is some information, related with the use and benefit of a Title by the final user, of which EasyProf® keeps track and it is called “Tracking information” or “Tracking”.

For example, tutors are generally interested in the following information:

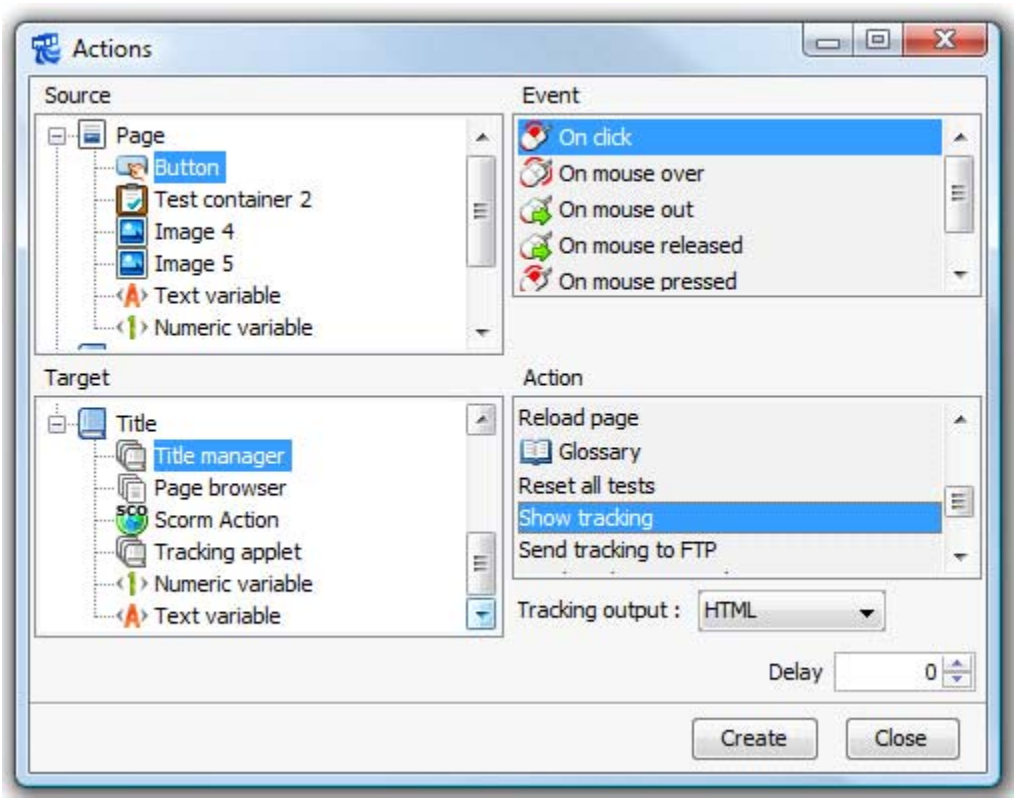
- The student’s personal information.
- The general course details: the time taken over it, students’ assessment of the course, etc.
- Statistics about page viewing: which pages were visited and for how long.
- Searching for text chains in the Title, looking up the glossary of terms, etc.
- Results of the tests performed by the student.

All this Title tracking information can be viewed by a supervisor, a responsable or tutors in a HTML file that may be generated by the action Title administrator follow-up.

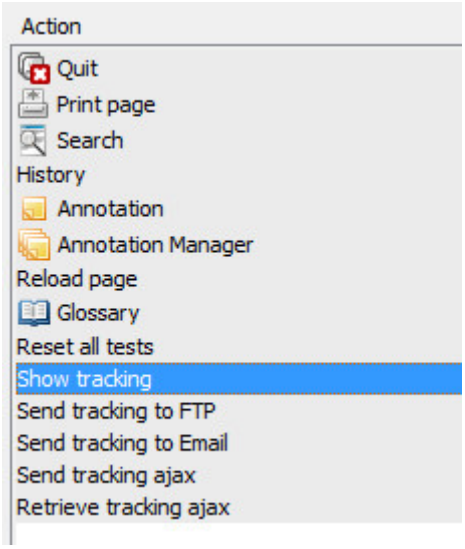
11.2 The Follow-up action

To generate the Follow-up file it is necessary to create the action which will be created. To do so, you have to proceed like this:

1. Introduce an interactive content element in the page, for instance a button.
2. Open the window New action.
3. Select the button in the original field.
4. Select the event.
5. Select the Title manager in the field target.
6. Select Show tracking in the field action.
7. Click on the button [Create].



We can perform three actions by monitoring. Display it to the user, send it by e-mail or send it via FTP.



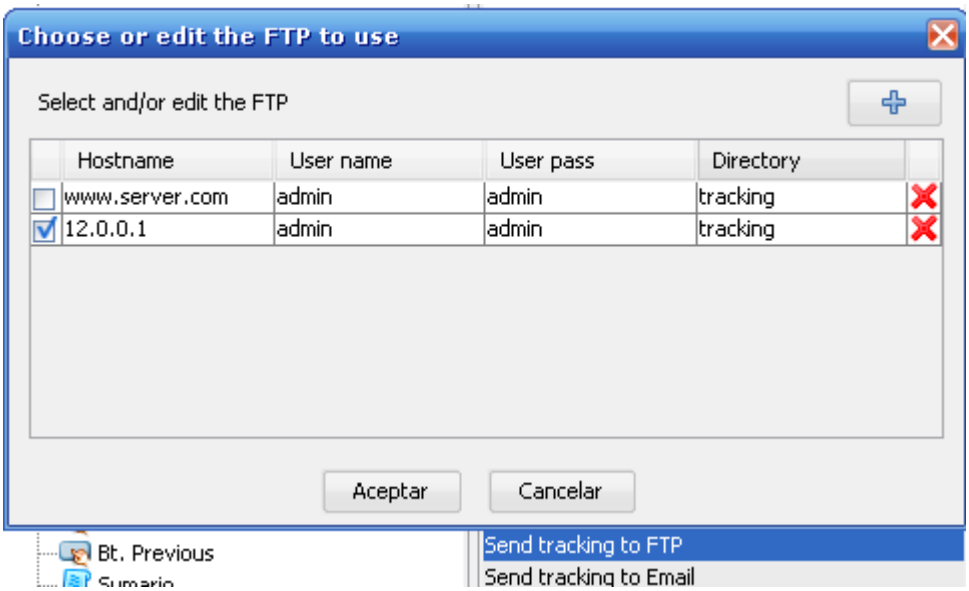
11.3 Sending tracking file

Through actions, just as we can display the monitoring to user, we can send it to the teacher or tutor of the course. To do so there are two methods:

FTP Uploading

Allows user to define access data to an FTP where all users tracking will be kept. When we generate the action, we must chose option Send tracking to FTP and we press Edition button (...) that appears under the window. A new window is displayed where we can insert all FTP server access data.

- Host: Used to enter our server location. It can be a URL or an IP address.
- User name: We must enter a user name with allowance to wrtite on the server.
- Pasword: We must enter a password for the chosen user name.
- Directory: In case we have created a specific directory on the server to locate tracking filess, that's the place to enter it.

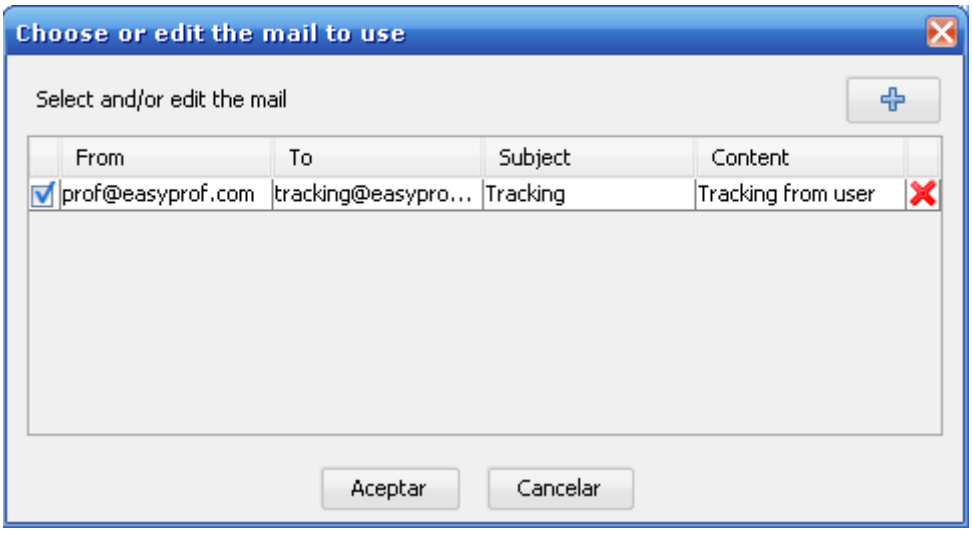


Every time that the action determined to send the tracking file (pressing a button, closing a title, finishing a test...) is completed, a file will be kept in the defined location. We must access the FTP with the same data from a client FTP to view them.

FTP uploading only works for content exported in HTML or HTML SCORM format hung on a server with a running PHP. Please contact your system administrator to know the exact details of your server.

Sending it by e-mail

Allows user to define access data via e-mail. When we generate the action, we must chose option Send tracking to Email and press Edit (...)button under the window.



We have to define two mail addresses, one from where the tracking information will be sent and the second to where that information will be sent. This option is only operative when our course is created in HTML and uploaded in a PHP activated server. The sending email address must belong to the server domain and has to be abilitated for using without authentication. Please contact your system administrator or your hosting provider in case of any problem.

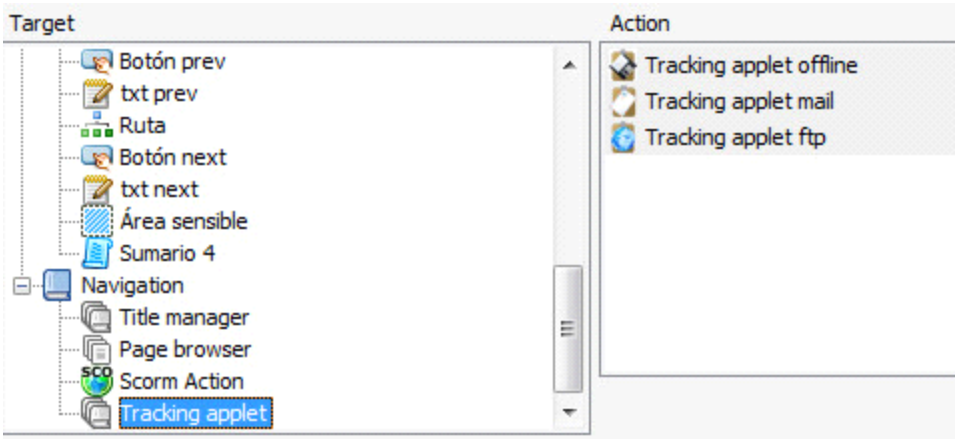
It is possible to define the Subject and Contents content that will commonly have all emails when receveived with tracking (so that we can define a code for each title, allowing us to filter and better organiza received messages). The tracking file will come as an attached file.

Email sending only works for content exported in HTML or HTML SCORM format hung on a server with a running PHP. Please contact your system administrator to know the exact details of your server.

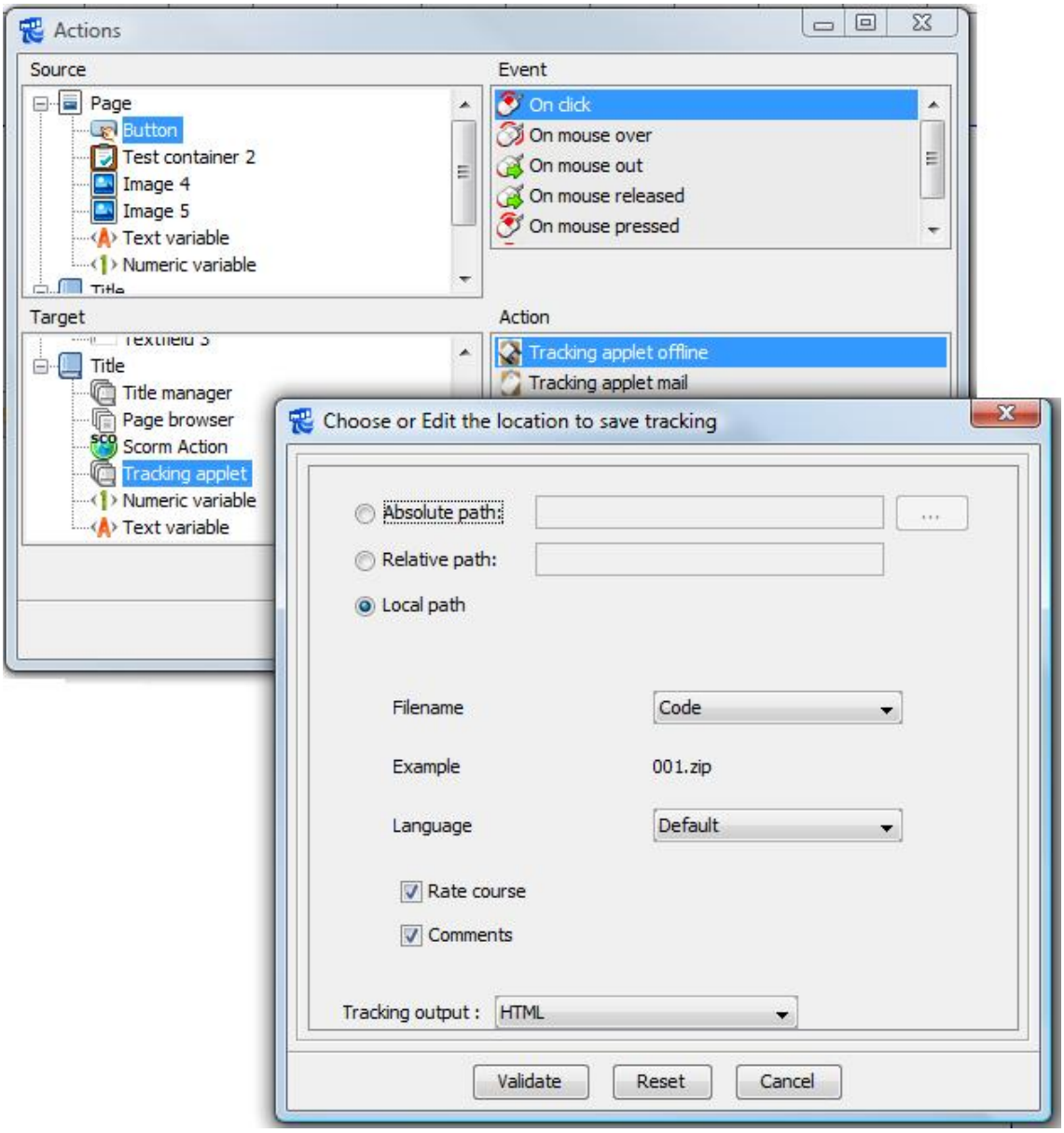
Sending e-mail or by Applet FTP

EasyProf® normal monitoring is intended for HTML or SCORM HTML content available in server with PHP. However, this is not always the best option. That is why we offer as well the possibility of managing monitoring using an Applet by Java. This option is much more powerful than the previous,as it not only allows sedning content via email or FTP, but also keeping it in a location in final user's hard drive. Information is then always available. Although it is more interesting than traditional monitoring, we still sometimes use the traditional method for two reasons. First one is that it is much faster if we only want to display tracking instead of sending it. Secondly, tracking applet requires having a Java plug-in installed in final user's computer. The vast majority of users have it installed as it is automatically downloaded when the browser requires it. However, in certain organizations, system aministrators do not allow users to download plug-ins. That is why both options are still available.

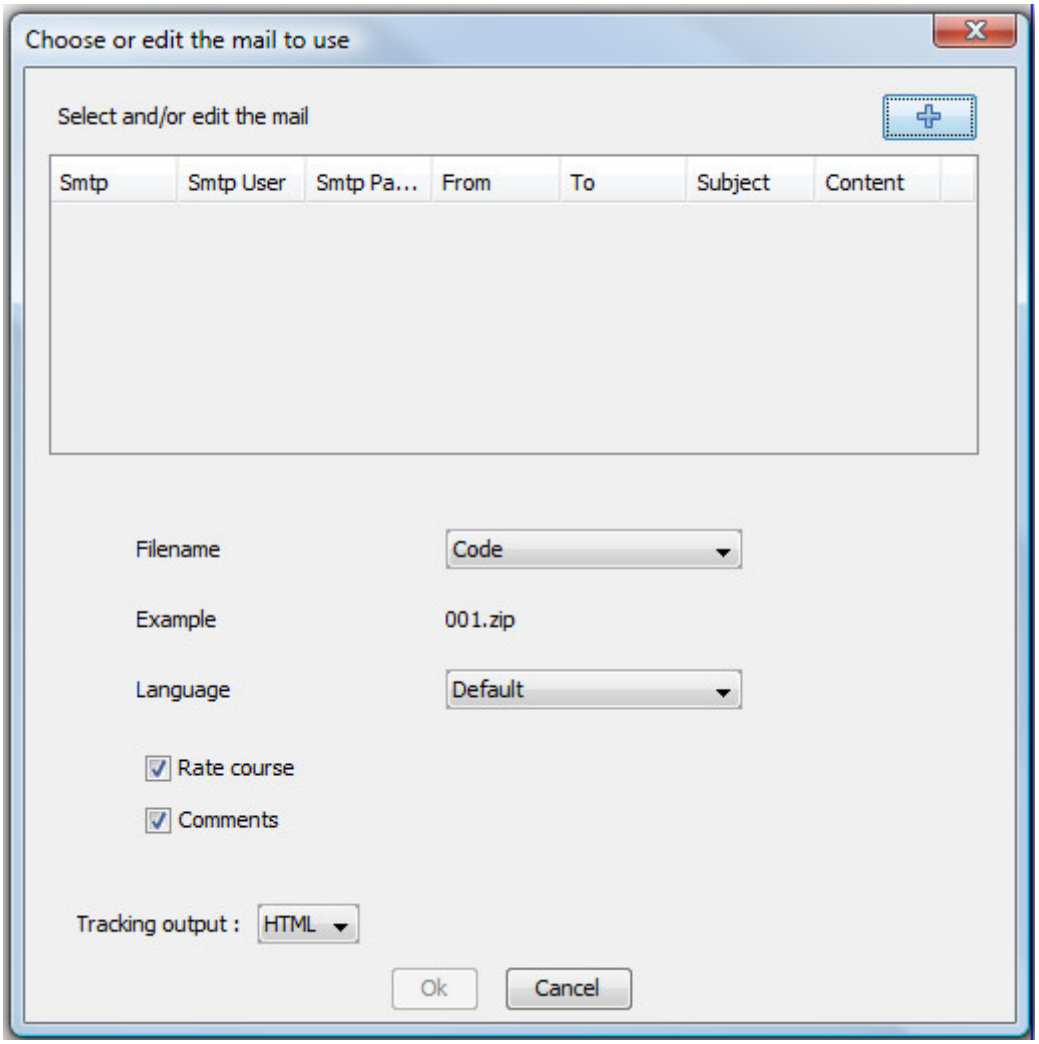
The tracking applet lets us save the tracking in a hard drive, send it by email or upload it in an FTP server.



If we choose tracking applet offline we can define the location where the file will be saved and the name that it will receive.



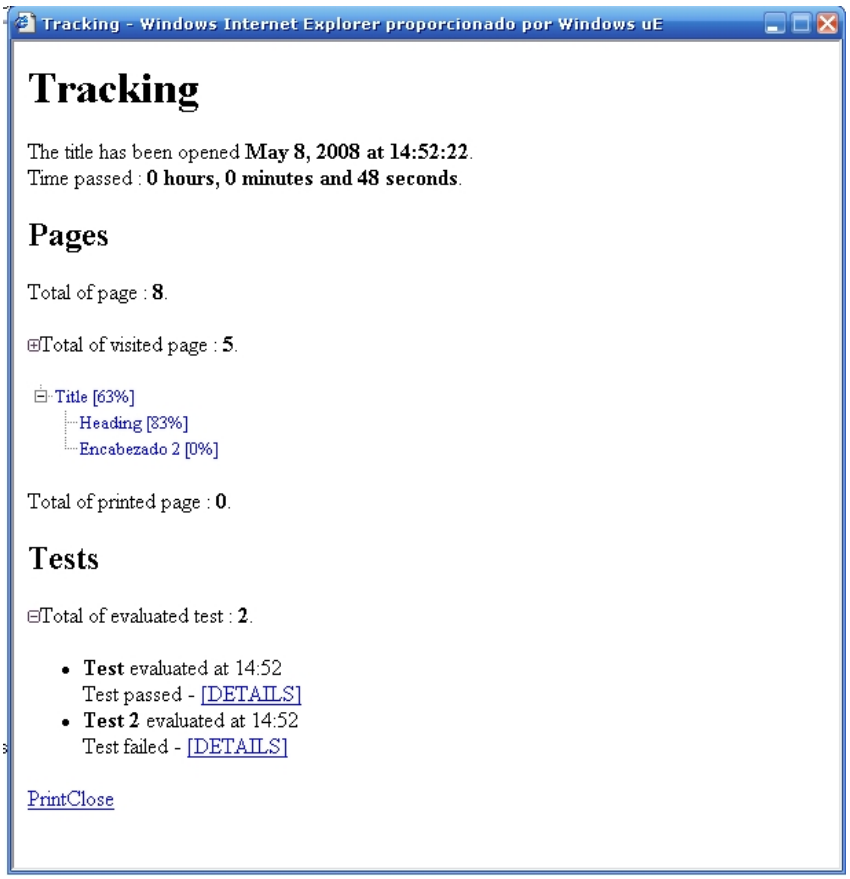
We can also define the language of the form and whether we will ask user for his valoration and content observations. Monitoring can be displayed in any of the languages in which EasyProf® is translated. Name of the file, language and options of valoration and observations are defined in the same way when tracking is sent via email and FTP.



Monitoring can be sent in HTML or XML format.

11.4 Show tracking file in HTLM

The tracking file in HTLM format generated by EasyProf®® contains the following information about the course.


Tracking - Windows Internet Explorer proporcionado por Windows uE
Tracking
The title has been opened May 8, 2008 at 14:52:22.
Time passed : 0 hours, 0 minutes and 48 seconds.
Pages
Total of page : 8.
Total of visited page : 5.
Title [63%]
Heading [83%]
Encabezado 2 [0%]
Total of printed page : 0.
Tests
Total of evaluated test : 2.
Test evaluated at 14:52
Test passed - [DETAILS]
Test 2 evaluated at 14:52
Test failed - [DETAILS]
PrintClose

Follow-up

It includes the following information about student's tracking:

- Open date: the day and the hour when the project has been opened are shown.
- Time spent: shows how much time the project has been opened.

Pages

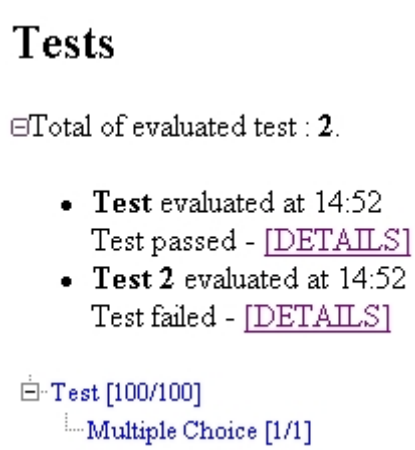
It shows information about pages:

- Total of pages: it shows the total number of pages contained in the project.
- Total of visited pages: how many pages have been visited.
- Percentage of visited pages: shows a tree with headings of the project and the percentage of the visited pages regarding the total number of pages, concerning the entire project but also each heading.
- Total of printed pages: Displays how many pages have been printed.

Tests

Shows the result of the test:

- Total tests made: indicates the number of tests which have been made by the user.
- Tests made: Shows a list of all tests made by the student, the hour of the evaluation and the result (whether it is failed or succeed). Each test of the list includes a link to show the detailed test.
- Detail of the test: for each test made, it shows the score, the type of questions, and the percentage of correct and incorrect answers. It displays questions and answer headings, including open answer questions.

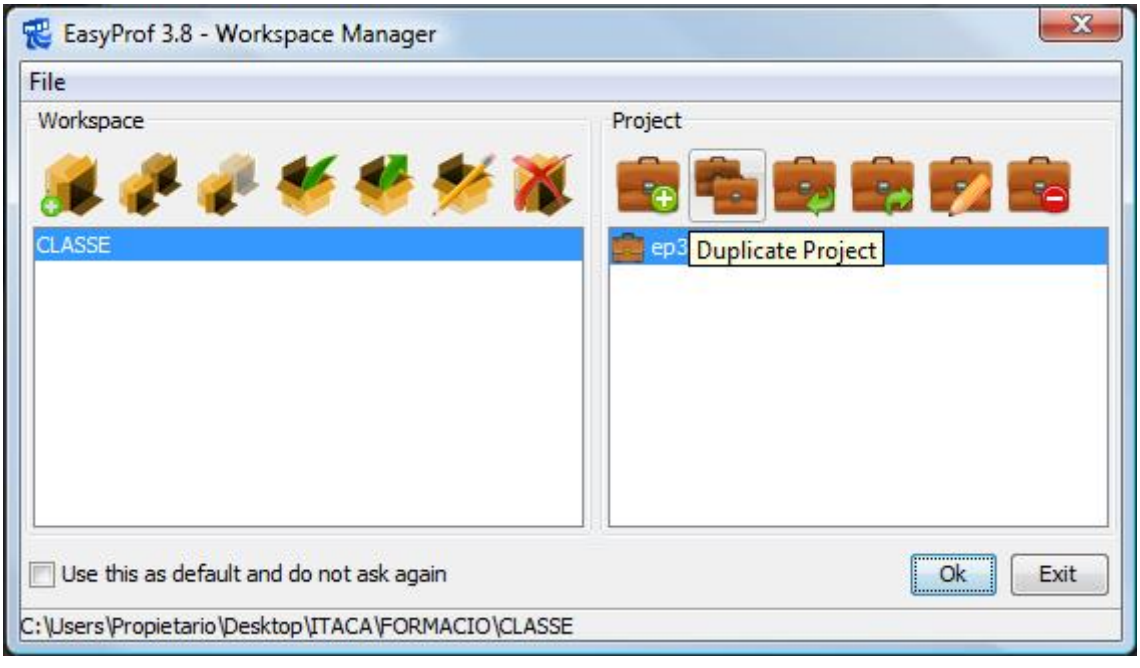


12 EASYPROF® TRANSLATOR TOOL (OPTIONAL)

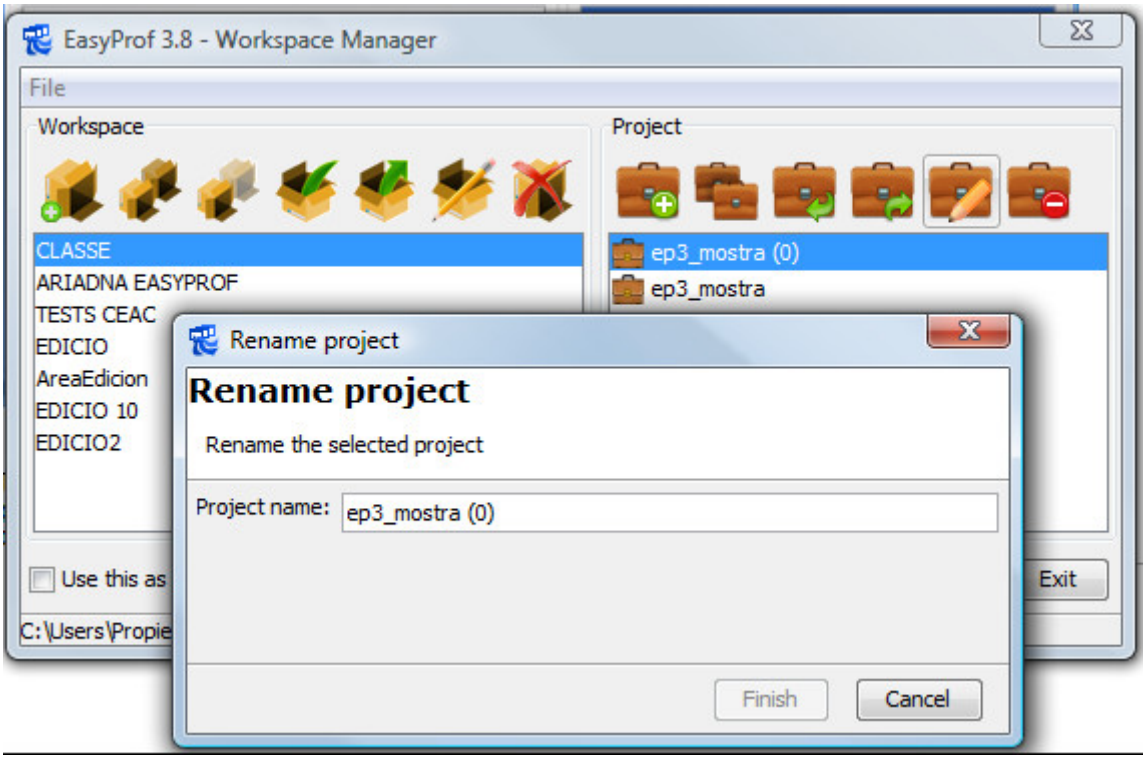
EasyProf® translator is an extension of EasyProf® sold separately to those editors who want to translate their courses to multiple languages. It allows translation of a title made with EasyProf® to another language in a very easy and fast way. All texts included in an EasyProf® title can be translated with the exception of the embedded texts in the media objects.

How to use EasyProf® Translator?

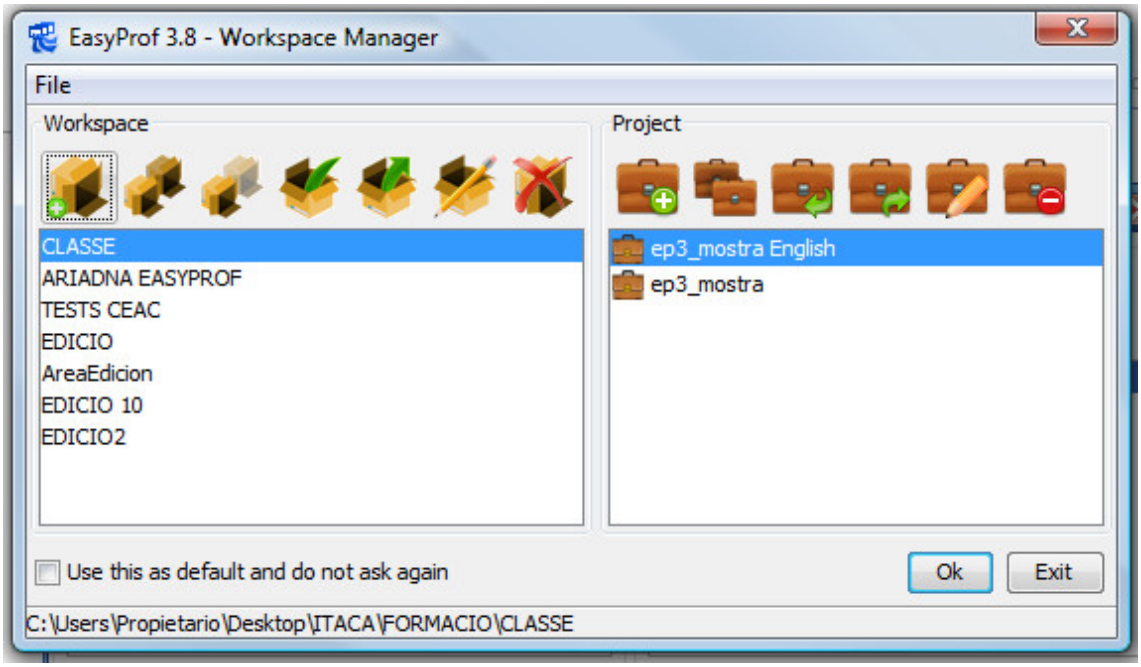
First of all we must duplicate the project that we want to translate, from the Workspace Manager.



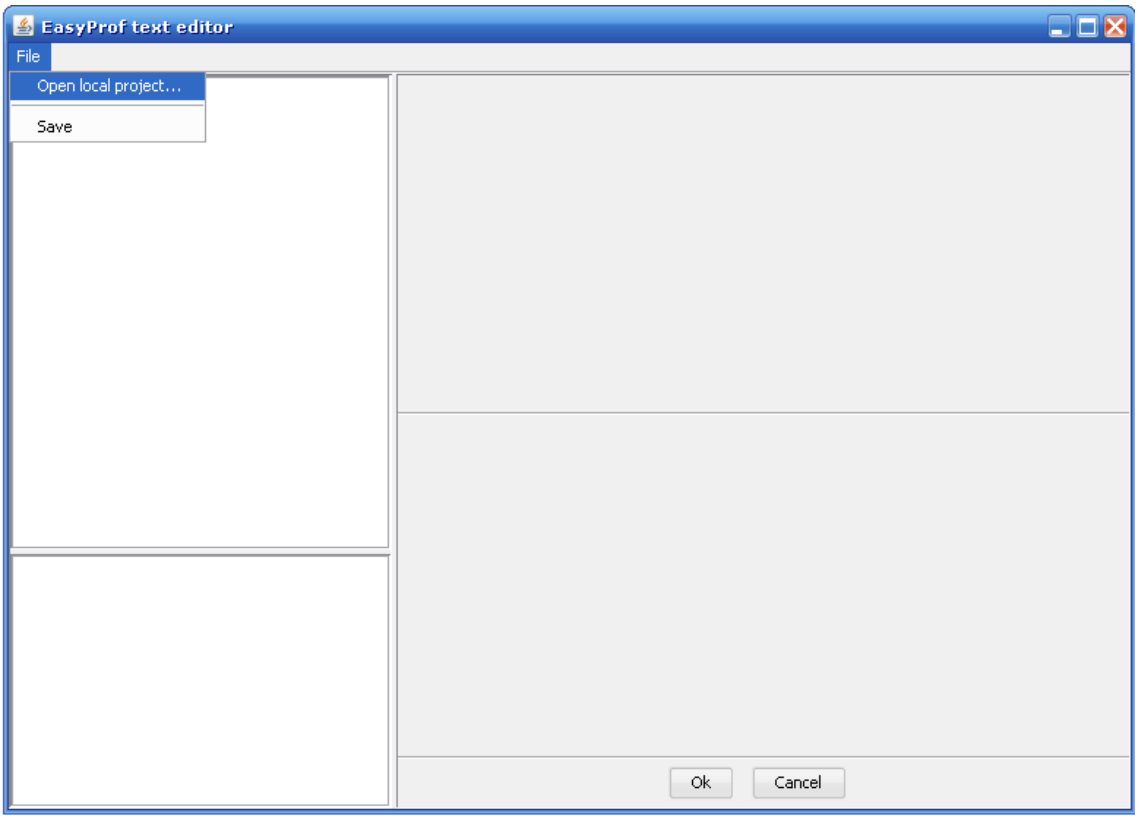
A second identical project will be created. We will rename it with the identificator we want to use for the translation.



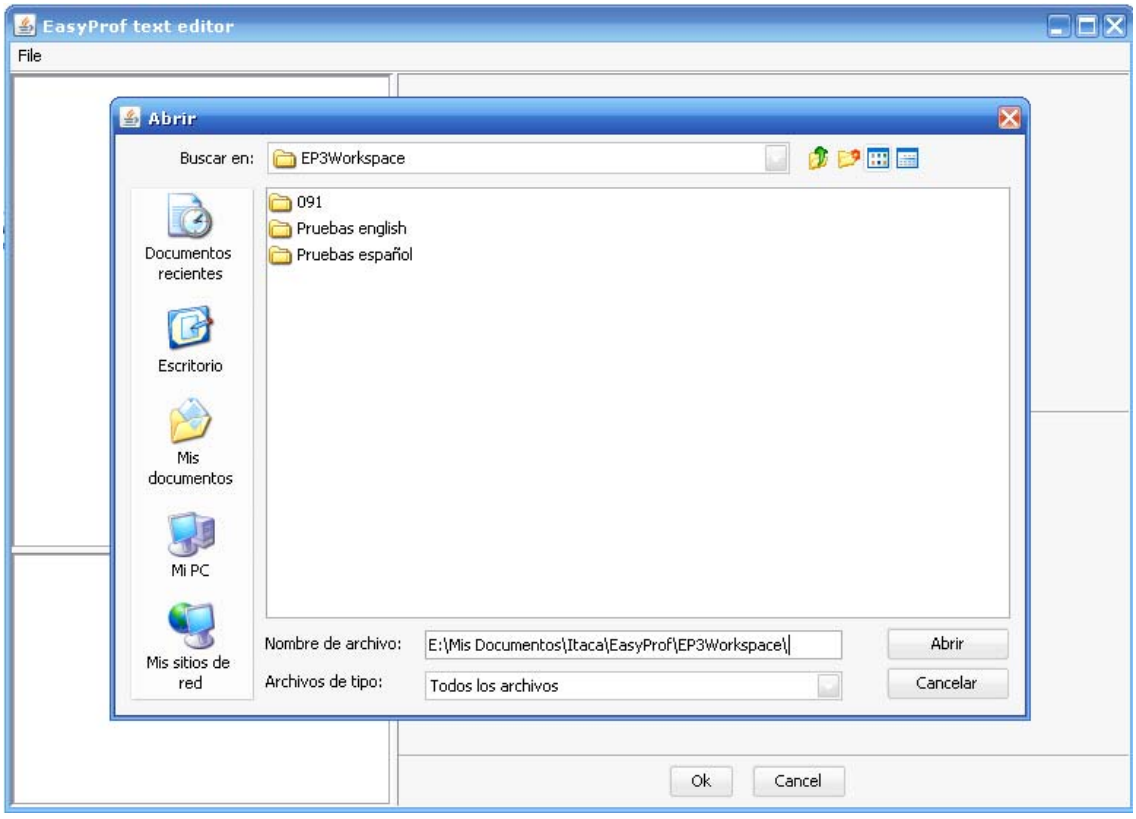
We will have two exact projects, with different names, in the same Workspace. Please note that we can always check our Workspace location in the bottom left corner of the screen.



We can now open EasyProf® Translator tool and open the file that we wish to translate. We can do so by clicking File > Open local project.

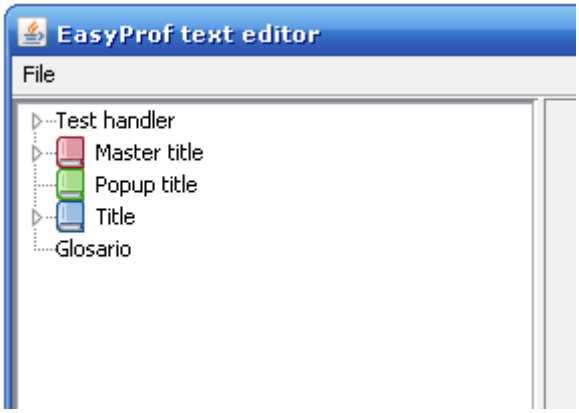


File browser will be displayed to select the folder where project is kept. Its location is exactly the one we could see in the bottom left corner of the workspace.

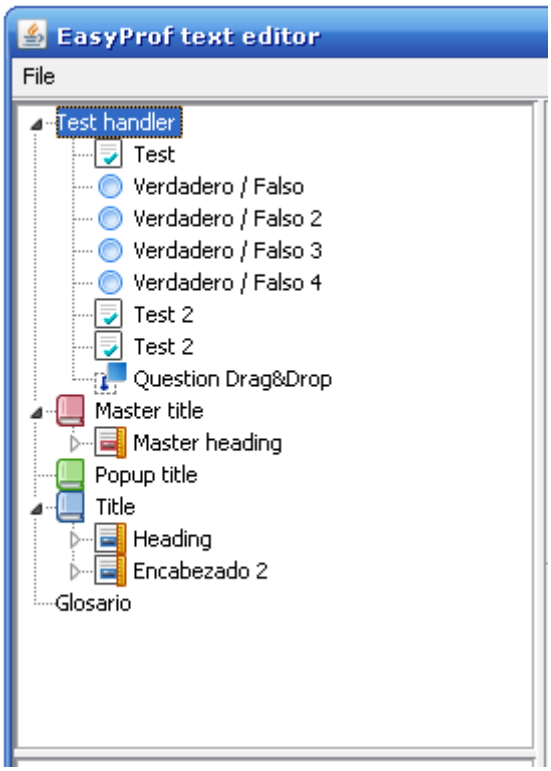


Select folder corresponding to the project that will contain the translation, namely the copy done and renamed in the previous step. EasyProf® translator tool will show us five groups corresponding to the different locations where we can find texts:

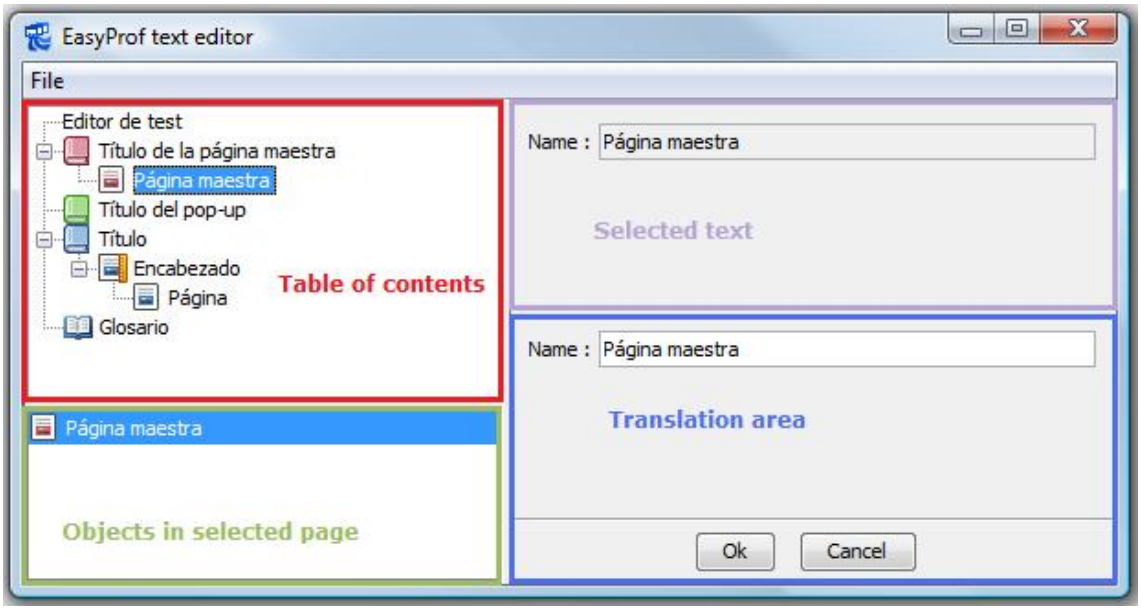
- Tests
- Master Pages
- Pop ups
- Titles
- Glossary



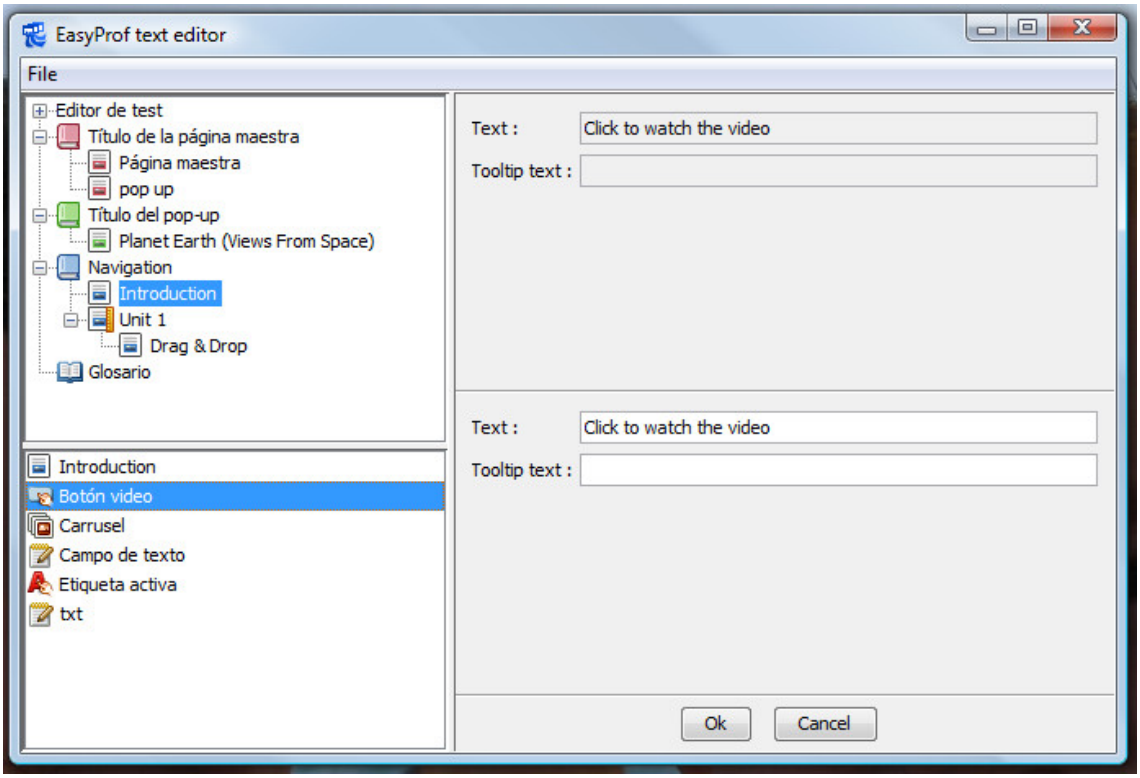
Sections containing texts that may be translated appear marked with a triangle to their left. By clicking on it a tree will unfold and display all elements containing text.



When placing cursor on top of any element, we can see the original text displayed on the right part of the window and an empty space to include our translation (below).

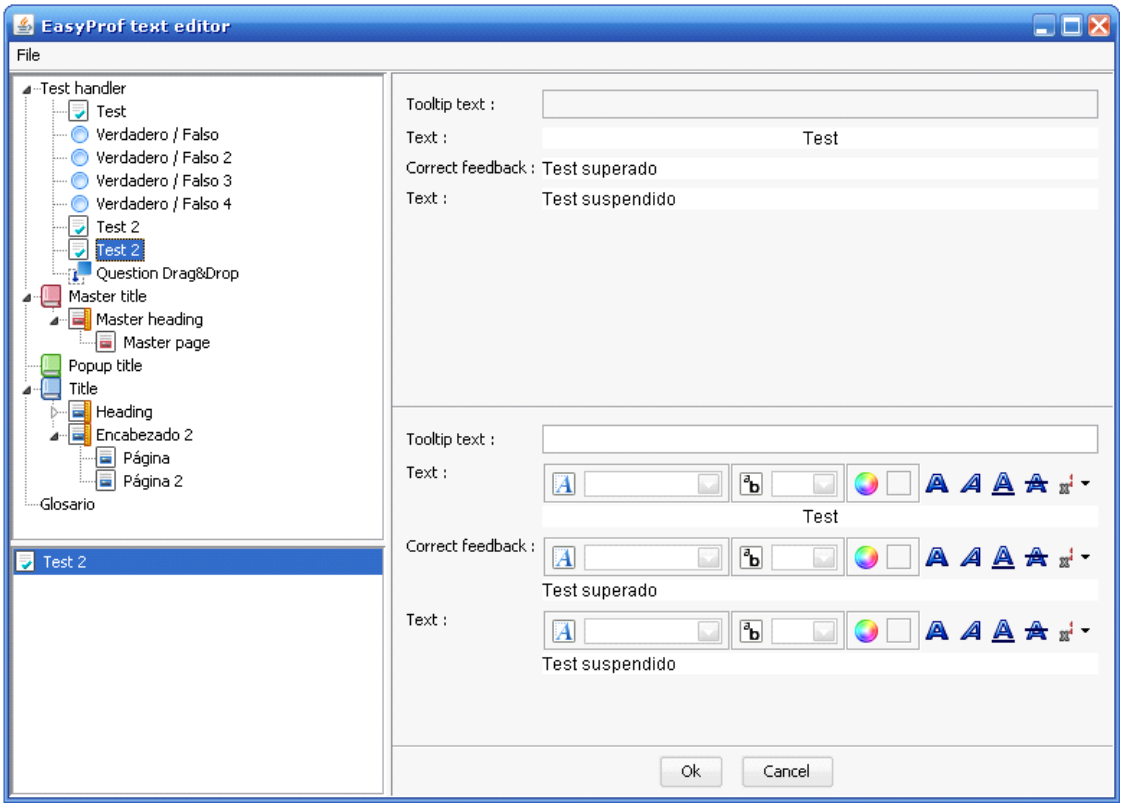


When a page is selected, we can see all objects with texts that can be translated in the bottom left part of the screen. By selecting them, its texts will appear in the right side of the screen to be translated.
Important: To make translation effective, don't forget to click OK for each object.

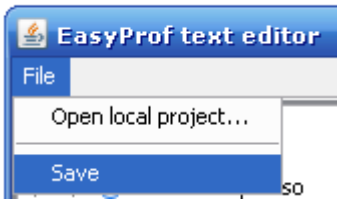


Some elements, such as the rich text, allow the user to change even the style of the text.

When selected item has more than one text, as in test feedback, they are all displayed in the same screen.



Once translations have been done, we only have to save them by clicking File > Save.



All original texts will be replaced by its translations.

13. Glossary

A

Action

Actions determine interactivity in the edited Titles. Action is defined as everything that happens to a certain content element (destiny) or even to the same Title, when a specific event happens on an Origin content element.

ADL

Advanced Distributed Learning, was an initiative sponsored by the United States government in November 1997, with the mission to improve access and availability at any time an from any place to educational materials of a high quality, as well as the force of the market of content and development of the software that allows its creation. To do so we count with emerging technologies as well as with the existing ones.

Animated GIF

A file containing a series of GIF images displayed in a fast sequence in the browser, producing the effect of an animation.

Applet

Application programed in Java that is executed in a virtual Java machine from a browser after a process of downloading.

Asset

An asset is a constructive part of a SCO, for example a web page, graphic, document or media (audio or video). Thus, a SCO is usually composed of one or more assets, and in extreme cases it can be an individual asset, if it meets at least one learning objective. In most occasions it will not be possible. For example a media file wouldn't be enough to conform a learning objective, so it will not satisfy the criterion that efines a SCO.

Associated Page

A page has an associated Master Page as a dynamic background. Existing interactive elements in a Master Page are accessible from all associated pages. When we make a change in a Master Page, this change is immediately reflected in all associated pages.

Attributes window

Window where we define the characteristics of content items.

B

Bean

Containers place on the page to include information that forms the content of the Title. In object-oriented Java programming it is called reusable sotware.

Boolean

It refers to an expression or variable that can only have value True or False.

Brother heading

Heaing of the same hierarchical level as another one.

Browser

Software application that allows user to display HTML pages available on the Internet. Its functionalities may be extended using plug-ins.

C

Cache

Referred to the Internet, it is the copy mantained by a browser of the recently visited web pages, so that if user asks for them again, they may be loaded from the hard drive without any network connection, thereby achieving a very noticeable improvement in response time. Similarly, it is useful while navigating, online, again for recently visited pages, because files found in the cache will be loaded from the hard drive if they match any of those belonging to the page that user is visiting.

Content element

Element with data and/or interactive areas that is inserted in the pages an/or Master pages.

D

Digital certificate

Encrypted digital stamp obtained from a certification authority (CA) which certifies without any doubt the identity of an individual or an institution.

DTD

The purpose of the DTD or Document Type Definition is to define allowed construction blocks of an XML document. It defines the structure of the document with a list of legal elements. A DTD may be declared in the XML document itself, or as an external reference.

E

Edit Menu

Drop-down list that allows us access to the options for Titles edition: Undo, Redo, Cut, Copy, Paste, etc.

F

File Menu

Drop-down list that allows us to access the options for file management such as: New, Open, Save, Print, etc.

Final user

Title is destined to the Final user.

FTP

The FTP (File Transfer Protocol) is a way to transfer files in the Internet. An FTP client program transfers files between a har drive and a remote server.

G

GIF

Graphics Interchange Format. File format used to store images, developed by CompuServe. GIF supports 256 colors and is frquently used in web pages due to its easy compression

H

Heading

Is each of the levels in the Table of contents.

Help Menu

Drop-down list that allows us access to Use Guide EasyProf®, Quick guide, Help and other options.

HTML

Hyper Text Mark-up Language. We speak about a file format, based on SGML, used in hypertext documents that appear on the Internet.

HTTP

Hypertext Transfer Protocol. Internet protocol based inTCP/IP and used to collect hypertext objects from remote host systems.

I

IMS

Instructional Management Systems Global Learning Consortium. Institution formed by the e-learning industry to standardize various aspects of online learning

ISP

Internet Service Provider, usually connectivity, housing, hosting, e-mail, FTP, etc.

J

Jar

Java compressed file similar to ZIP format. File format used to pack multiple files into a single file, and after an unpacking process goes back to its original state.

Java

Object oriented Programming language, developed by the company Sun Microsystems Inc., specially suitable to develop Internet exportable applications and able to operate on any platform and operating ayatem, usually through www browsers.

Java Runtime Environment

Software environment where Java virtual machine compiled programs can run. The execution environment includes all the necessary coding to load Java programs, link native methods in a dynamical way, memory management, exceptions and an implementation of the Java virtual machine, which can be a Java interpreter.

Java Virtual Machine (JVM)

Part of the Java runtime environment responsible of interpreting the Java bytecodes. Browser uses a Java virtual machine integrated as a plug-in to be able to execute Applets.

JPEG (o JPG)

Join Photographic Expert Group. Compression standard image files created by the Join Photographic Expert Group (JPEG). This standard achieves a very high compression level, with the introduction of distorsions in the image hardly noticeable. It is particularly suitable for pictures or images with millions of colors.

JRE

Java Runtime Environment. Subset of the Java development kid for users and developers who want to redistribute JRE. This JRE environment consists of the Java virtual machine, Java central classes and supporting files.

L

Link

Result of marcation in HTML language. A link tells the browser that all data in a document will be automatically communicated with nested data or with external resources. Link is critical in hypertext design.

LMS

Learning Management Systems. LMS are used to prepare, develop and organize learning content. They primarily focus in supporting adminitrative processes related with developing learning content for a final user. Provides integrated tools for managing the courses, skills for evaluating and monitoring capacity.

Loop

Set of instructions whose execution is repeated until a stop condition is verified.

M

Master Pages

Dynamic templates where elements that will appear inmultiple pages can be introduced. Elements of a Master Page will be automatically displayed in all asociated pages.

Master pages area

It is the area of EasyProf® interface where the tree structure that houses the Master Pages is displayed.

Master pages bar

This is the toolbar that allows us working with master pages structure, with the possibility of making actions such as: New Master page, New subheading, Duplicate, etc.

Menu bar

It is the bar that gives us access to several drop-down menus: File, Edit, View, Title, Table of Contents, Object, Window and Help.

Multimedia

Integration of procedures that use sound, images, videos or text to display information, specially in an interactive way.

O

Object Menu

Drop-down list that allows us access to the options for element edition: New action, Align, Distribute, etc.

P

Page

Fundamental content support that is organized sequentially in the Table of Contents, as in a book. It supports interactive objects such as buttons, hyperlinks, hot spots, etc.

Page area

It is the area of EasyProf® interface where the contents of different Title pages are displayed.

Paradigm

Case or example that serves as a model for new creations.

Píxel

Unit of information representing a point in a graphic image. Its name comes from the abbreviation of the phrase “picture element”

Plug-in

Small program that adds a function to another program, usually a browser. Examples of Plug-ins would be Flash and Java.

PNG

Portable Network GraphicsFormat designed to replace the older and simpler GIF format and even the very complex format TIFF. Its two main areas of application are the Worl Wide Web (WWW) and image edition.

Compared with GIF format , PNG has three major advantages: possibility of creation of variable transparency, gamma correction, interleaved bidimensional system and a better compression, although it does not support animation in GIF format.

Properties

Properties window of a page allows us to assign a name to the page, include a Title and associate it to a Master Page, either by inheritance or by express assignment.

Q

QTI

Question and Test Interoperability. Specification developed by IMS (Instructional Management Systems) Global Learning Consortium. It defines a standard XML format in which evaluation tests are represented. These test may be reused for any system that meets this specification.

S

SCO

Sharable Content Object. The SCO are containers for reusable educational material, independent from the context, used as modular constructive blocks to create learning content in electronic form. SCO are more effective when organized by metadata classification system and stored in data repositories.

SCORM

Sharable Content Object Reference Model. Set of specifications, compiled from multiple sources and adapted to provide a wide array of learning capabilities in electronic support (e-learning) allowing interoperability, accessibility and reusage of learning-oriented content and based on the Web.

Subheading

Heading with a hierarchical lower level than another heading.

T

Table of Contents

Content structure of the Title. Formed by all different Headings and subheadings as well as for all the pages belonging to eah one of them

Table of contents area

It is the area of EasyProf® interface where the Title is structured. In it we can modify the Table of contents structure and of the tree that houses the Master Pages.

Table of Contents bar

This is the toolbar that allows us working with master pages structure, with the possibility of making actions such as: New Master page, New subheading, Duplicate, etc.

Table of Contents Menu

Drop-down list that allows us access to the options to work with the content structure: New page, Delete, etc.

Title

This is the name of the project, of the work in progress mae with EasyProf®.

Title Menu

Drop-down list that allows us to publish the Title, edit the glossary and the SCO metadata, make previews, etc.

Title preferences

This option allows us defining a number of preferences in the Title, global and specific. Global affect the whole Title (Background, path) and the specific are applied to the Master Pages by default, but can be indiviually fixed to each of them (Master Page configuration).

Toolbar

It is the icon bar that allows access to different functions to edit pages or to manage the Title: New title, Open title, Save title, Undo, Redo, Cut, Copy and so on.

Tools

Those utilities that let us insert elements in pages or Master pages and edit them.

Tooltip

Tooltip that appears when mouse is placed over a content element.

U

URL

Universal Resource Locator or Uniform Resource Locator. Standard to write a reference in a text in a series of data in the WWW. A URL has the syntax “protocol://system/local information” where “protocol” specifies a protocol used to collect the object (as HTTP or FTP), “system” specifies the Internet host name where search is performed (for example www.un.org) and “local information” is a string, uually the name of a file, transferred to the protocol handler in the remote system (for example home.htm)

User

The author, who creates an editable and interactive file with multimedia content and later publishes it.

V

Variable

Data element named by an identifier that can be modified by actions. Each variable has a type, such as numeric or text string and can be used at the page level or in the whole Title.

View Menu

Drop-down list that allows us access to the options of application visualization.

W

Window Menu

Drop-down list that allows us access to the options of the windows: View, Organization and window closing.

X

XML

eXtensible Markup Language. Language developed by the World Wide Web Consortium (W3C) to allow the description of information contained in the WWW through standards and common formats, so that both Internet users as specific programs (agents) can search, compare and share information online. XML data format is very similar to HTML. The main difference between them is that XML describes information while HTML only specifies how to display it.